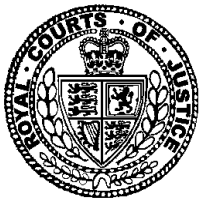

Neutral Citation Number: [2018] EWHC 1815 (Fam)

Case No: NZ12C00057

IN THE HIGH COURT OF JUSTICE
FAMILY DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Circulated to the parties: 26 June 2018
Handed down in open court: 14 December 2018

Before :

SIR JAMES MUNBY PRESIDENT OF THE FAMILY DIVISION

- -

In the Matter of X (A Child) (No 4)

- -
- -

Ms Sarah Morgan QC and Ms Sharon Segal (instructed by the local authority's legal services) for the local authority
Ms Deirdre Fottrell QC and Ms Marlene Cayoun (instructed by Russell Cooke) for X's adoptive parents
Mr Andrew Norton QC and Mr Christopher Archer (instructed by Creighton and Partners) for X's guardian

Hearing dates: 17, 20-21, 26, 28 October, 1-2, 7, 9, 11, 14 and 21 November 2016

- -

Judgment Approved

This judgment was handed down in open court on 14 December 2018

There are no restrictions on publishing this judgment but <u>there is a reporting restrictions order in force preventing the identification of X and of X's adoptive parents</u>

Sir James Munby President of the Family Division :

1. This is the third trial of allegations that a mother and father, the birth parents of X, as I shall refer to them, inflicted serious injuries on X when only a few weeks old in 2012.

2. I have already given three judgments detailing the background and explaining how this third trial has come about: *Re X (A Child) (Review of Fact Finding in Care Proceedings)* [2016] EWHC 1342 (Fam), [2017] 2 FLR 61, *Re X (A Child) (Publicity) (No 2)* [2016] EWHC 1668 (Fam), [2017] 2 FLR 70, and *Re X (A Child) (Care Proceedings: Rehearing)* [2016] EWHC 2755 (Fam), [2017] 2 FLR 80. Taking all that as read, I can summarise matters quite briefly.

3. The first trial was a fact-finding hearing in February 2013 before His Honour Judge Nathan in the Guildford County Court conducted in the course of care and placement order proceedings begun by the local authority.

4. The local authority's Schedule of Findings Sought was dated 4 September 2012. It identified the precipitating event as occurring when the birth parents took X to the Accident and Emergency Department of the Royal Surrey County Hospital at Guildford (RSCH) in the small hours of the morning when X was some six weeks old. The Schedule listed (paragraph (i)) three categories of what it alleged were inflicted injuries, "significant physical injuries, the nature and causation of which cannot be explained by [the] parents."

5. The first (paragraph (i)(b)-(d)) was described as follows:

> "(b) Upon examination by the medical professionals at the hospital, it was found that [X] had the following marks on [X's] body:-
>
> > 1 A 2.5 cm crescentic purple, non-blanching mark above right nipple.
> >
> > 2 Two circular purplish marks, 4cm above right antecubital fossa. The lateral mark measures 0.5 x 0.5 cm and the medial mark measures 0.5 x 0.5 cm and the medical mark measures 0.4 x 0.5. There is 1cm between the marks.
> >
> > 3 A 3.5 cm slightly curved linear purple, non-blanching mark above the right knee, on the medial side.
> >
> > 4 A 1.5 x 1.0 cm blue/grey circular bruise on upper left arm.

5 2 linear purple, non-blanching marks on left forearm. The lateral mark measures 2.5 cm and the medial mark 1.5 cm.

6 A 2.9 cm purple linear mark on left lower quadrant of abdomen.

7 A 1.1 x 1.2 purple non-blanching circular mark in left groin crease.

8 A 2 cm linear purple non-blanching mark on medial side of [X's] left knee.

9 Four non-blanching spots in a line on the right side of upper back.

10 A 1.2 cm linear purple, non-blanching mark under right scapular.

11 A 3 cm linear purple non-blanching mark on back of right upper arm.

(c) The above marks are likely to have been injuries to [X] and are likely to have resulted from the impact of a hard object or gripping with a hand with unreasonable force. They were non-accidental.

(d) The injuries are likely to have caused [X] pain, which would have caused [X] to suffer emotional distress and harm."

6. The second (paragraph (i)(e)-(f)) was described as follows:

"(e) Additionally upon examination by the medical professionals at the hospital the upper lip frenulum was red and infected with a bifid appearance and had been torn.

(f) This was likely to have been caused by a blow to the mouth or an object being rammed into the mouth."

7. The third (paragraph (i)(g)-(m)) was described as follows

"(g) A skeletal survey on 26 April 2012 revealed the following:

(a) Periosteal reaction due to periosteal injury on the shaft of the left ulna;

(b) Metaphyseal fractures of the right and left proximal tibia;

(c) Metaphyseal fractures of the right and left distal femur.

> (h) The fractures/periosteal injury are likely to have been caused by the application of a twisting force to the limbs.
>
> (i) They may have been caused on the same occasion but would have required at least 3 separate applications of force.
>
> (j) They are unlikely to have been caused at the time of and in the process of [X] being born.
>
> (k) It is unlikely that they are due to any disease, organic deficiency or disorder.
>
> (l) The fractures/periosteal injury were non-accidental in causation.
>
> (m) It is likely that at the time of the fractures/periosteal injury [X] would have shown immediate distress, manifesting as crying for 10-15 minutes; thereafter [X] is likely to have suffered discomfort for several days when the limb was moved, so a regular carer would notice a change in [X's] behaviour."

8. Paragraph (i) continued:

> "(n) It is likely that either of the Mother or the Father or both of them caused each of the above injuries to [X].
>
> (o) The parents confirmed to medical professionals that over the 1-2 weeks prior to 24 April 2012 they had noticed "purpley bruises come and go all over [X's] body but not on [X's] back"; in all the circumstances, given the marks identified to [X] as described above, they both failed to seek appropriate medical attention for [X] in a reasonable time.
>
> (p) The perpetrator of the injuries – bruises/marks and fractures – knew or ought to have known that they had caused injury to [X] and did not seek medical attention for [X]."

9. There were also allegations (paragraph (ii)) that X was "likely to suffer significant physical harm and neglect", given that "no or no adequate explanation has been provided" for what was said to be "a significant list of injuries and marks" and (paragraph (iii)) that X had been "exposed to domestic violence and abuse between the parents, which had placed [X] at risk of significant physical and emotional harm."

10. It was, as Judge Nathan made clear in the judgment which he subsequently gave on 1 March 2013, a 'single issue' case in which only the birth parents were within the pool of possible perpetrators:

> "It is not suggested that anyone, other than the baby's parents, cared for [X] for any significant period at the material time, and so if there were injuries and they were non-accidental, any pool of perpetrators is confined to the mother and father. They are

> first time parents who have not previously been known to Social Services. No particular indicators of poor parenting, sometimes associated with non-accidental injury, have previously been noted."

The judge identified the issues as follows:

> "The factual questions I have to decide are therefore these:
>
> (a) Did [X] suffer the fractures alleged?
>
> (b) Did [X] suffer the number of bruises and marks suggested?
>
> (c) If [X] did, were any of these injuries non-accidental?
>
> (d) If they were who was the perpetrator, or who were the possible pool of perpetrators?
>
> (e) Was the torn frenulum caused deliberately, recklessly, negligently or in innocence?
>
> (f) Are any of the ancillary allegations proved?"

11. At the hearing, Judge Nathan had written reports from three experts:

> Dr Joanna Fairhurst, a Consultant Paediatric Radiologist at Southampton General Hospital (report dated 7 August 2012).
>
> Dr Marian McGowan, a Consultant Paediatrician at St George's Healthcare NHS Trust (report 7 August 2012).
>
> Dr Andrew Will, Consultant in Paediatric Haematology at Royal Manchester Children's Hospital (reports 5 November 2012, 15 December 2012 and 31 January 2013).

12. All three experts gave oral evidence, as did the birth parents and some of the treating clinicians at RSCH:

> Dr Karen Morton, the consultant obstetrician and gynaecologist who had delivered X by emergency caesarean.
>
> Dr Joanna Maynard, a year 7 paediatric trainee, Dr Mark Ingram, a consultant radiologist, and Toby Daniel, a nurse, who were involved following X's admission six weeks later.

I have the transcripts of the evidence of (in this order): Dr Fairhurst, Dr Maynard, Nurse Daniel, Dr Ingram, Dr McGowan, Dr Morton, Dr Will, and the birth parents, the father and the mother.

13. Judge Nathan gave judgment on 1 March 2013. I have the official transcript. He concluded that:

> "In the circumstances I find all of paragraph (i) of the threshold amended to exclude any reference to a possible nappy scratch and four possible blood spots [I understand this to be a reference to the allegations in paragraph (i)(b) 6, 9]. I also find (ii) to be proved. As to (iii) I find the passage in bold [ie, as summarised in paragraph 9 above] to be proved. I do not think it necessary or appropriate to make any findings about the facts pleaded in support of the findings already made."

14. He elaborated his findings in a passage which I need to set out at some length:

> "When I look at the parents' evidence as a whole it shows an attempt by them to cover up weaknesses in their relationship, the father's anger and [X]'s fretfulness … They have not therefore attempted to give clear explanations of events that require those explanations; in fact they have done the reverse.
>
> The medical evidence here is very strong for a number of reasons. The bruising, the fractures to the legs and the injury to the arm are all in themselves and taken alone extremely suspicious in a non-ambulant child. As a constellation of injuries they make the case for non-accidental injury overwhelming.
>
> … I cannot speculate how these injuries occurred. We have not been told the full story of what went on behind closed doors … Whether the bony injuries could have occurred as a result of [X]'s exposure to the fight, we have heard about on the 18th April, or a similar fight or fights we have not heard about I cannot say. I accept the evidence that the leg fractures would require a twisting mechanism so it is difficult to see how such an incident might have occasioned them. It is just possible that one parent held on to [X] by [X's] legs during that sort of incident twisting them, and as I say I cannot speculate.
>
> Having seen the parents given evidence I find it hard to reconcile their demeanour with a deliberate attack on a child they loved. I cannot however rule out the possibility that one of these otherwise loving parents did, as can on occasions happen, reach the end of their tether and behave in a way which is entirely out of character. That would be consistent with a problem of anger the mother accused the father of in one of the texts. I am however quite unable to say exactly what happened and whether in the event that it was not exposure to a fight, it was the mother or the father.
>
> So far as the bruises are concerned I cannot speculate that they are consistent with the possibilities I have already set out. It [is]

> clear from Dr Will's evidence, and I find it to be the case that some exposure to pressure holding or impact beyond normal handling must have been the cause of the bruises.
>
> So far as the tear to the frenulum is concerned, this is consistent with recklessly rough bottle feeding by the tongue of a parent, probably the father, on the night of the 24th of April rather than a deliberate attempt to hurt. My one query about Dr McGowan's evidence was her exclusion of this as a real possibility. Having seen the father and the mother my view is that this would not have been in character.
>
> Accordingly there is a real possibility that the mother or the father were the perpetrators of the fractures and the bruises. So far as the torn frenulum is concerned, because of its timing it is more likely than not to have been the father's probably tired and reckless feeding. There is insufficient evidence otherwise for me to be satisfied on the balance of probabilities that specifically one of the parents was the sole perpetrator of the other injuries."

15. There was no appeal from this judgment.

16. Later in 2013, Judge Nathan conducted a 'welfare' hearing. He gave judgment on 4 October 2013 and, on the same day, made care and placement orders in relation to X. There was no appeal from those orders. Subsequently, X was placed with Mr and Mrs Y as prospective adoptive parents. They applied to adopt X. In response, the birth parents applied for permission to oppose the adoption application. Their application was heard by Judge Nathan on 13 March 2015. Judge Nathan refused their application. He explained why in a judgment given the same day. Again, there was no appeal from his order.

17. Later the same day, 13 March 2015, Judge Nathan made an adoption order in respect of X in favour of Mr and Mrs Y. The effect of that order was, as a matter of law, as provided in sections 46 and 67 of the Adoption and Children Act 2002. Whilst never forgetting that, as matters stand, Mr and Mrs Y are X's parents, and the birth parents are not, clarity will nevertheless be furthered if I continue to refer them as the birth parents and Mr and Mrs Y as the adoptive parents.

18. The second trial took place in September 2015 in the Guildford Crown Court before His Honour Judge Critchlow DL and a jury when the birth parents stood trial on counts of child cruelty contrary to s 1(1) of the Children and Young Persons Act 1933.

19. The Crown called, or proposed to call, the following experts:

> Dr Fairhurst (statements dated 26 October 2013, 21 August 2015 and 30 September 2015).
>
> Dr McGowan (reports dated 20 October 2013, 13 September 2015 and 24 September 2015).

> Dr Richard Stanhope, Consultant Paediatric Endocrinologist at the Portland Hospital (reports dated 3 September 2015, 12 September 2015, 21 September 2015, 24 September 2015, email dated 24 September 2015).
>
> Professor William Frazer, Honorary Consultant in Clinical Biochemistry and Metabolic Medicine, Professor of Medicine and Head of the Department of Medicine at the University of East Anglia (report and statement dated 26 September 2015, emails dated 29 September 2015, 6 October 2105).
>
> Dr John Somers, a Consultant Paediatric Radiologist at Nottingham Children's Hospital (report dated 27 September 2015 and statement dated 6 October 2015).

The Crown also obtained, though in the event it did not deploy, a report from Dr Andreas Marnerides, a Consultant Perinatal and Paediatric Pathologist at St Thomas' Hospital (statement dated 15 September 2015).

20. The birth parents called the following experts:

> Dr David Ayoub, a board certified radiologist licensed to practise medicine in the United States of America in the states of Illinois, Missouri and Iowa (report dated 25 May 2015).
>
> Professor Stephen Nussey, Professor of Endocrinology at St George's Hospital Medical School and Honorary Consultant Endocrinologist at St George's Hospital (reports dated 19 August 2015, 18 September 2015 and 18 September 2015).
>
> Ms (now Dr) Robyn Shea, Principal Clinical Scientist and Head of Vitamins at Sandwell and West Birmingham NHS Trust (reports dated 23 September 2015 and 28 September 2015, statement dated 11 March 2016 and report dated 5 October 2015).

The birth parents had also obtained, though in the event they did not deploy, reports from various other experts:

> Dr Catherine Adams, a Forensic Odontology Consultant (report dated 25 April 2014).
>
> Dr Colin Michie, Consultant Paediatrician at Ealing Hospital and Honorary Clinical Senior Lecturer in Paediatrics at Imperial College London (reports dated 26 April 2014 and 14 May 2014).
>
> Dr Amaka Offiah, Clinical Senior Lecturer and Honorary Consultant Paediatric Radiologist at the University of Sheffield and Sheffield Children's Hospital (report dated 14 May 2014).

> Dr Marta Cohen, Consultant Paediatric Histopathologist at Sheffield Children's Hospital (report dated 7 September 2015).

21. The trial in the Crown Court opened on 21 September 2015. Judge Critchlow decided that the jury should, at the outset, be taken through all the expert evidence, hearing, discipline by discipline, first from the expert called by the prosecution and then from the corresponding expert called by the defence. Thus, the experts gave evidence in the following sequence: Dr Stanhope, Professor Nussey, Dr Fairhurst, Dr Ayoub, Mr Daniel, Dr McGowan, Dr Will, Ms Shea and Professor Fraser. In each case I have the official transcripts or (in the case of Professor Nussey and partly in the case of Dr Fairhurst) agreed notes of their evidence.

22. The next witness due to be called, on 6 October 2015, was Dr Somers. In the absence of the jury, Leading Counsel for the Crown, Mr Mark Bryant-Heron QC, addressed the judge on the subject of Dr Somers' report:

> "This morning I made a phone call to Dr Somers, who your Honour will recall was the additional radiologist instructed by the Crown at short notice who produced a partial report. Your Honour will also recall that in the course of that report he excluded beyond a reasonable doubt the presence of rickets radiologically. What his report is silent on is his analysis of the metaphyseal changes, as to whether they are metaphyseal fractures. In the course of my exchange with him this morning, he expressed the view to me that he was doubtful as to whether they are metaphyseal fractures. That, I immediately disclosed – at the earliest opportunity obviously – to my learned friend.
>
> … The statement itself reaches a firm conclusion on the absence of rickets, but is silent as to an analysis of the metaphyseal changes/fractures. I took the opportunity on the telephone to ask him whether he had in fact had a chance to analyse the metaphyses, and he confirmed that he was doubtful that they were metaphyseal fractures. Now I deliberately did not go into any further detail at that point, and I set in train the events which I have described to you. In relation to the running of the case, we have Dr Maynard here who was the doctor on duty who first saw [X] on admission on 24th April, I think. I am asked by my learned friends not to call her until this issue is resolved."

23. After further discussion with counsel, Judge Critchlow adjourned the hearing overnight. The following day, 7 October 2015, and still in the absence of the jury, Leading Counsel for the Crown again addressed the judge:

> "The background is this. The prosecution had evidence from a highly experienced and respected consultant paediatric radiologist (Dr Joanna Fairhurst) that the skeletal survey showed to the criminal standard – that is beyond reasonable doubt – that there were metaphyseal fractures as a result of the

> inappropriate application of force which baby [X] had suffered. The issue raised by the defence in the case was that those changes were attributable to rickets. It is the prosecution position that that defence has been substantially undermined by the evidence of prosecution experts in this case.
>
> Given the development of the argument in this case, and as responsible prosecutors, we sought a second opinion from Dr Somers as to the analysis of the skeletal survey of baby [X]. He gave his opinion in a statement to us that baby [X] was not suffering from rickets. He gave this opinion to the criminal standard: he was sure of that. In the course of consultation yesterday, he gave his view to the prosecution team that he could not be sure that metaphyseal fractures were present. This was immediately disclosed. His opinion – clarified this morning – is that there may be fractures, but he cannot be sure.
>
> The prosecution have considered the position carefully. This is clearly a serious case. As a responsible prosecution faced with differing opinion from two respected experts in a difficult area of expertise, we have concluded that it would not be possible for the jury to conclude so that they are sure that metaphyseal fractures are present. Therefore, there is no longer a realistic prospect of conviction in respect of the central allegation on this indictment. This is not – in the view of the prosecution – a reflection on the undoubted expertise of both consultant paediatric radiologists, who have provided evidence for the prosecution. There is, however, a difference of opinion in a difficult diagnostic area. And as responsible prosecutors, we do not seek a conviction in those circumstances, and we propose to offer no evidence.
>
> THE RECORDER: Yes. Well, Mr Bryant-Heron, knowing what I do of this case and having heard the evidence to date, and being made aware of what you imparted to the defence yesterday having heard from Dr Somers, it is entirely appropriate that you have taken this course."

24. After the jury had returned to court, they were addressed by the judge:

> "Right at the start of this trial two weeks ago, I was informed by the prosecution that Dr Somers had been consulted, but he would not be able to give a further report for a month or so. All parties decided the case should get going after all the delay and so on, and it was not expected, I believe, that he would be able to come up with any views.
>
> Well yesterday, Mr Bryant-Heron did receive from that consultant information which – in accordance with any prosecution counsel's duty – he immediately imparted to the

> defence. It was to the effect that having been able to look at the images, as a consultant paediatric radiologist, he did not conclude that he could be sure that they showed metaphyseal fractures. He informed the prosecution that in his opinion there was no evidence of rickets, but that it may be a situation where – although possibly suspicious and a suggestion of it – he could not be sure that there were metaphyseal fractures.
>
> You will know that in any criminal case – and certainly in this one – the prosecution who bring the charge must be able to show to a jury that beyond reasonable doubt – or so that a jury is sure – there were fractures.
>
> Now that being Dr Somers' opinion, and in view of all the other differences of opinion, the prosecution yesterday wanted time to reflect upon whether this case should continue, and they discussed it at the highest level of the prosecution services (the CPS) on the South Eastern Circuit for Kent, Surrey and Sussex. And having considered it carefully with Mr. Bryant-Heron – recognising that obviously allegations of fractures to a baby are serious – it was determined in all the light of the evidence and Dr Somers' most recent opinion, that the prosecution could not say that there is any longer a realistic prospect of conviction. That being the case in an area of difficult diagnosis, they have come to the conclusion that it would not be proper for this case to continue any further. And therefore they are in effect saying "We abandon the prosecution."
>
> Now the defendants – both of them – are in your charge, and you will remember at the start of the trial they were put in your charge. So it is therefore for you – through your foreman – to return verdicts of not guilty on each of these three charges upon my direction as a result of what I have just told you and what the prosecution have decided."

25. Thereupon, as directed, the jury delivered verdicts against both defendants of 'Not guilty'.

26. It is important to appreciate that the birth parents were not merely acquitted by the jury. They were, on the judge's direction, acquitted on the basis that the Crown had abandoned the prosecution. On the other hand, as lawyers will appreciate, the task facing the Crown in the Crown Court was to persuade the jury of the defendant's guilt "beyond reasonable doubt." The standard in the family court, as in civil courts generally, is lower: is the judge satisfied on a balance of probabilities – is it more likely than not? – that what is alleged has been proved. That said, in the family court as in the Crown Court it is for those making the allegations – in the family court, the local authority; in the Crown Court, the Crown – to make good their case. The parents – here the birth parents – do not need to prove anything.

27. On 21 December 2015, following the outcome of their trial in the Crown Court, the birth parents applied to the Court of Appeal (B4/2015/4314) for permission to appeal out of time against Judge Nathan's decision on 1 March 2013, essentially on the ground that there was fresh evidence now available to them which satisfied the test in *Ladd v Marshall* [1954] 1 WLR 1489. They sought orders setting aside Judge Nathan's findings and ordering a new trial. It should be noted that there was no application for permission to appeal against either the care and placements orders made by Judge Nathan on 4 October 2013 or the adoption order made on 13 March 2015. On the other hand, both in the grounds of appeal as settled by counsel and in the accompanying skeleton argument dated 7 December 2015, it was made clear that (I quote the grounds of appeal) "If the parents succeed in overturning the findings … they will seek revocation of the adoption order."

28. In accordance with directions given by McFarlane LJ on 26 January 2016, the application for permission to appeal came on for hearing before Black and McFarlane LJJ on 14 March 2016.

29. The Court of Appeal did not, as I understand it, give any reasoned judgment. It made an order acknowledging that "the facts found by HHJ Nathan on the 1st March 2013 should be re-considered by the court in light of the expert evidence called at the appellants' criminal trial at the Guildford Crown Court in October 2015" and providing in effect (I need not go into the details) that the matter should go forward on an application under the inherent jurisdiction to be issued by the local authority and listed initially before me for directions. The application, seeking "a re-hearing of the fact finding from the care proceedings", came before me on 28 April 2016, when I adjourned the application part-heard to 11 May 2016.

30. The case put forward by the birth parents was simple and compelling. They had been, they said, the victims of a miscarriage of justice. They sought to clear their names, both so that they might be vindicated and also so that there was no risk of Judge Nathan's findings being held against them in future. For different reasons, the birth parents' desire for there to be a re-hearing was supported by X's guardian. It is, the guardian submitted, in X's best interests that [X] should know the truth about the birth parents and about what did or did not happen to [X] while in their care.

31. Following this I gave my first judgment: *Re X (A Child) (Review of Fact Finding in Care Proceedings)* [2016] EWHC 1342 (Fam), [2017] 2 FLR 61. I explained why I had concluded (paras 23-24), applying *Re Z (Children) (Care Proceedings: Review of Findings) (Practice Note)* [2014] EWFC 9, [2015] 1 WLR 95, that justice from every point of view demanded that there be a rehearing and that it was appropriate to proceed to a full rehearing of the original allegations made in the care proceedings. "Nothing short of a full rehearing will suffice", I said. The rehearing was fixed to begin on 17 October 2016.

32. On 11 October 2016 each of the birth parents notified the court and the other parties that they wished "to withdraw from the rehearing" and no longer sought to challenge Judge Nathan's findings: see *Re X (A Child) (Care Proceedings: Rehearing)* [2016] EWHC 2755 (Fam), [2017] 2 FLR 80, para 7. Each of the birth parents filed a 'Final Response' to the local authority's schedule of findings sought dated 4 September 2012. Each put the local authority's case in issue, not accepting, for example, that X

had sustained metaphyseal fractures and in any event putting their causation in issue. Each denied causing whatever injuries X had suffered.

33. I heard detailed arguments from counsel as to whether the matter could and should proceed: *Re X (A Child) (Care Proceedings: Rehearing)* [2016] EWHC 2755 (Fam), [2017] 2 FLR 80, para 10. Ms Martha Cover and Ms Katy Rensten, for the birth mother, and Mr Mark Twomey, for the birth father, submitted that it could not and should not. Ms Sarah Morgan QC and Ms Sharon Segal, for the local authority, Ms Deirdre Fottrell QC and Ms Marlene Cayoun, for the adoptive parents, and Mr Andrew Norton QC and Mr Christopher Archer, for X, submitted that it could and should. It was made clear (para 14) that neither of the birth parents was willing to take part in the rehearing or to give evidence.

34. I decided (para 26) that the hearing would nonetheless proceed and made clear that I was not prepared to rule out the birth parents being compelled to give evidence if the local authority (or, indeed, any other party) sought to bring them before the court. I said (paras 30-32):

> "30 … The fact is that, because of everything which has happened in this most unusual litigation, we are in a very good position to know what the birth parents' case is and how it would, in all probability, be deployed before me were they to remain participating fully in the rehearing. So I am reasonably confident that the essential fairness and validity of the process will not be compromised by their absence, just as I am reasonably confident that, even if they play no part in it at all, the process will be able to find out the truth for X and for the public.
>
> 31 This is subject to one important qualification. There must be a proper challenge mounted to the witnesses, embracing, as it seems to me, three separate issues: first, challenge designed to clarify what the witness is saying; second, challenge designed to elucidate the witness's response to the opinions of other witnesses on points of difference; and, third, and this is vitally important, challenge designed to elucidate the witness's response to the essentials of the birth parents' case as it is set out in the various materials I have referred to above. That is a task which, in my judgment, can properly be undertaken by counsel instructed by the guardian and which does not, in the unusual circumstances of this case, in any way compromise the guardian's neutrality. The simple fact is that this is no longer a case in which the guardian has a welfare role to perform (except in relation to any future argument about reporting restrictions) and there will not, insofar as I am in a position to assess the matter, be any risk of either the guardian or her counsel being put in a position of professional embarrassment. Ultimately, of course, that is a decision for them and not for me, but I do not understand Mr

> Norton and Mr Archer to feel any difficulty about undertaking this role.
>
> 32 I shall of course keep the position under review as the rehearing proceeds, to ensure that the matter is proceeding fairly and appropriately and in the manner best calculated to making sure that we achieve the objective as I have set it out above."

35. It was in these circumstances that the hearing began before me on 17 October 2016. The birth parents attended to give evidence when summoned but were otherwise not present, nor were they represented. I should make clear that at no stage did either of the birth parents refuse to answer any question which was put to them.

36. In the circumstances, this is *not* a case in which I should draw adverse inferences from the fact that the birth parents have disengaged from the process, nor do I.

37. In addition to all the earlier expert reports to which I have referred, I had further expert reports from:

> Dr Somers (report dated 1 September 2016).
>
> Dr Offiah (email 12 October 2016).
>
> Dr Fairhurst (letter 14 October 2016).
>
> Professor Nussey (report 16 October 2016).
>
> Dr Will (report 31 October 2016).

I also had expert reports from:

> Dr Anand Saggar, a Consultant in Clinical Genetics and Honorary Senior Lecturer in Medicine (reports 20 September 2016, 4 October 2016).
>
> Dr Andrea Goddard, Consultant Paediatrician, St Mary's Hospital, Paddington (report 2 October 2016).

38. I heard oral evidence from the following witnesses, in the following order: Professor Fraser, Mr Daniel, Dr Offiah, Dr Fairhurst, Dr Stanhope, Professor Nussey, Dr Goddard, Dr Brockway, Dr Adams, Dr Maynard, Dr Shea, Mary Delaney (a midwife, who visited X at home when five days old), Dr Somers, the birth mother, Dr Will and the birth father.

39. In the run-up to the final hearing, strenuous attempts had been made to engage with Dr Ayoub and to persuade him to give evidence by video-link. All were unsuccessful. I have not therefore had the benefit of hearing his evidence, though I do, of course, have his report dated 25 May 2015. I regret to have to say that, in my judgment, Dr Ayoub's evidence is worthless. If that seems a harsh judgment, one has only to read his cross-examination in the Crown Court by Leading Counsel, when he convicted

himself out of his own mouth. He gave evidence by video-link (Transcript, 1 October 2015, pages 14-57; the relevant cross-examination runs from pages 29-46).

40. The key passage in his cross-examination (pages 31-37) requires to be read in full, but the following extracts, in my judgment, more than suffice to make good what I have said:

> "Q But in addressing the issues you are asked to address in legal cases, it follows that your experience derives from a no doubt detailed research of text books rather than hands-on practice of rickets. Is that a fair observation?
>
> A That's accurate.
>
> Q Thank you. How many times do you think you've given evidence, doctor?
>
> A Approximately 75 times.
>
> Q How many times have you given evidence for the Prosecution?
>
> A I haven't ever been asked.
>
> Q Have you, on any of those 75 occasions, agreed with the proposition that a classic metaphyseal lesion is supportive of child abuse?
>
> A Never.
>
> …
>
> Q … you published research, together with some colleagues, in 2014 which was expressly critical of work which had been done in the area of CMLs and I hope I don't summarise it unfairly, the message from you was that the medical community is too ready to identify CMLs as indicative of child abuse. Is that a fair summary?
>
> A (Inaudible) I think that's reasonably accurate.
>
> Q And is that your view?
>
> A Yeah. I believe … In fact, I, at one point taught (?) that to residents (inaudible) some year ago.
>
> Q There is a body of work dating back to the 1960s on this subject and most recently I think, in the Pediatr Radiol, article of *Tsai and others*, which would render your view controversial, would it not? Is that fair enough?

> A Well, there is no question it's controversial because I am a minority view. No question about that.
>
> …
>
> Q He also cited you in the same radio interview as saying that: "Almost 100 per cent of cases I look at have rickets." Can I just ask you about those observations? Did you say: "Almost 100 per cent of cases I look at have rickets"?
>
> A It was true then and it's true today, yes.
>
> Q So is this where we are: metaphyseal fractures, if they are fractures, in your view happen extremely rarely and, for a great deal of the time, the medical community fail to take account of rickets; is that a fair summary?
>
> A Yes, I think that's pretty fair.
>
> …
>
> Q I don't know whether you've given evidence in this country before. Presumably you're familiar with our expert rules that we operate under, are you?
>
> A No, I'm not familiar with them."

41. In his report, Dr Ayoub criticised certain comments of Dr Fairhurst, saying that they were "unsupported by a careful and critical review of the literature." That, as Dr Ayoub's report makes clear, was a reference to a paper published in 2015 by C R Paterson. The sorry saga of Dr Paterson, as he was until he was struck off, can be traced through the successively reported judgments of Cazalet J in *Re R (A Minor) (Experts' Evidence) (Note)* [1991] 1 FLR 291, fuller judgment, sub nom *Re J (Child Abuse: Expert Evidence)* [1991] FCR 193, of Wall J in *Re AB (Child Abuse: Expert Witnesses)* [1995] 1 FLR 181 and of Singer J in *Re X (Non-Accidental Injury: Expert Evidence)* [2001] 2 FLR 90. In each case the judge was extremely critical of Dr Paterson. He was subsequently struck off, though continuing his academic career.

42. In relation to his reliance on Mr Paterson, Dr Ayoub's answers in cross-examination were revealing:

> "Q Colin Patterson was struck off in this country in 2004, wasn't he?
>
> A Yes, he was.
>
> …
>
> Q Did you know that he'd been struck off in 2004 for misrepresenting research in relation to temporary brittle bone condition?

> A I didn't know (inaudible) but I know that he was struck off because of that.
>
> Q Do you consider as an expert it's appropriate to cite somebody who has been struck off from the register in this country?
>
> A Dr Patterson is published in peer review and the GMC is a highly political body which, in my view, has no credibility. So what they have done to physicians who have gone up against political powers so I personally don't have much respect for the GMC.
>
> Q And so that was why you put that particular piece of research in support of your evidence in this case, was it, into your report?
>
> A I guess because it was the only paper published that summarised the extent of body of literature on fractures in rickets. So it (inaudible) of the citation which summarised many, many papers.
>
> Q Are you troubled ethically that you did not include in your report the numerous articles which hold a contrary medical view to your own?
>
> A. No."

43. Moreover, Dr Ayoub's whole approach was strongly criticised in front of me by both Dr Fairhurst and, more particularly, Dr Somers. Dr Somers was scathing:

> "Dr Ayoub's opinion is so far outwith orthodox opinion as to be unreliable … if [he] was working in our department, we would have referred him for a competency assessment … It's just nonsense – it just ignores all the experience of radiologists for the last 100 years. If he is right, everyone else is wrong. If he is right, we may as well all give up … I think the fact that Dr Fairhurst and I have a difference of view is healthy. Dr Ayoub will never have a different view – he'll say it is rickets. We are not just reproducing a position over and over again. We are dealing with the evidence."

Asked by me to amplify what he meant by "nonsense", whether he was using it with the colloquial meaning of "bonkers" or with the meaning "lacking any sense", Dr Somers unhesitatingly replied "both." Dr Somers said that Dr Ayoub's interpretation of the images was "so far removed from any competent radiological interpretation that I have encountered that I would question either motive or competence." He said of Dr Ayoub's report that it "obfuscates important issues with a selective interpretation of the evidence in order to support an unproven theory."

44. Dr Fairhurst, who said she felt uncomfortable criticising professional colleagues, nonetheless agreed with the substance of what Dr Somers had said, saying of Dr Ayoub: "I have great difficulty in understanding how he has come to the conclusions he has."

45. The view of Dr Ayoub expressed by Dr Somers, although scathing, was carefully reasoned. There are occasions, and this was one, where plain speaking justifies the use of strong language. Bearing in mind also what was said by Dr Fairhurst, I see no reason not to accept, and, indeed, convincing reason to accept, the assessment of Dr Ayoub articulated by Dr Somers. In evaluating their views in relation to Dr Ayoub, it is important to bear in mind, as Ms Morgan and Ms Segal point out, the ready willingness of both Dr Somers and Dr Fairhurst in other contexts to acknowledge the room for a respectable difference of professional opinion – not so in relation to Dr Ayoub.

46. As I have said, in my judgment Dr Ayoub's evidence is worthless. I find it difficult to imagine any circumstances in which he could appropriately be called as an expert to give evidence in a family court in this jurisdiction.

47. Pausing there to take stock, I have had the advantage of being able to consider the whole of the expert evidence which had before Judge Nathan and Judge Critchlow, together, of course, with the additional expert evidence to which I have referred, and, with the exception of Dr Ayoub, to hear all the same experts give evidence. The hearing before me lasted several days, during the course of which the expert evidence was probed in very considerable detail and, where necessary, by appropriately searching questions from counsel, in particular from Mr Norton. I am entirely satisfied that the requirements as I had set them out in *Re X (A Child) (Care Proceedings: Rehearing)* [2016] EWHC 2755 (Fam), [2017] 2 FLR 80, para 31, were fully met. I am quite satisfied that the essential fairness and validity of the process at the final hearing was not compromised by the limited role played by the birth parents. I am confident, as matters have turned out, that, the process has been able to find out the truth for X and, indeed, for everyone else and for the public at large.

48. At the end of the hearing I was supplied with appropriately lengthy and detailed written closing submissions which had been prepared by Ms Morgan, Ms Fottrell, Mr Norton and their respective juniors, in all running to some 215 pages. These contained very careful analyses of the issues and of all the evidence; they are an invaluable guide through the huge mass of material put before me. Much of that detailed analysis cannot, in the nature of things, be reproduced or even summarised in this judgment, but I have had it all very much in mind.

49. It is important to record that the written submissions prepared by Mr Norton and Mr Archer included, at every stage of the analysis, a very careful and balanced summary of the birth parents' case as it was understood and details of those matters, whether on behalf of the birth parents or of X, to which, it was submitted, the court might wish to have regard.

50. By the end of the evidence it would have been plain to everyone present at the final hearing that there had never been any miscarriage of justice and that, except in relation to the important question of the *number* of fractures X had suffered, the entire

substance of the local authority's case as I have summarised it in paragraphs 5 to 7 above had been demonstrated – demonstrated convincingly and compellingly and in a manner plainly satisfying the relevant burden and standard of proof. That was my view then and it remains my view now having read, re-read and reflected carefully on the final written submissions. Further reflection since the hearing concluded has persuaded me, furthermore, that the local authority has likewise made out its case in relation to *all* the fractures X is alleged to have suffered.

51. I make clear that, despite the unusual forensic history, I have approached the case at the final hearing on the basis that it is for the local authority to prove its case, if it can, and *not* for the birth parents to prove their case or to demonstrate that Judge Nathan was wrong. From beginning to end, I have treated the burden of proof as lying on the local authority. In deciding whether it has satisfied the burden of proof I have, of course, taken into account the whole of the evidence, written or oral, which has been put before me.

52. Given what I have just said there are three implications which need to be spelt out very clearly:

    i) It follows, and I find as a fact, that in all significant respects Judge Nathan's findings of fact have withstood scrutiny and stand firm. The additional expert evidence which has become available since Judge Nathan gave his judgment on 1 March 2013 far from undermining his findings is, I find, entirely supportive of them.

    ii) It follows, and I find as a fact, that the process before Judge Nathan has been vindicated.

    iii) It also follows, and I find as a fact, that the birth parents have *not* been the victims of any miscarriage of justice, nor has X.

53. The adoptive parents have endured all this with much fortitude, taking part in the process in the interests of their child. Their position is simple. When X came to live with them, they understood that X was a child who was removed from the birth family because X had suffered multiple injuries in the care of the birth parents. Their submission at the end of the hearing before me was (a) that this fundamental truth still holds good and (b) that the hearing has further confirmed that, in the last analysis, X was removed from the birth parents because it was necessary to do so to protect X. I accept that submission without qualification. They consider that the hearing reconfirms that X was adopted following a fair and transparent process and on the basis of findings (by Judge Nathan) that were sound. I unhesitatingly agree. They are understandably exceedingly critical, not least on behalf of X, of the stance adopted by the birth parents, who initially mounted a full frontal attack on the entire process which had culminated in X's adoption before trying, at the last minute, to walk away from the re-hearing. They were, as they put it, "stunned" by it. I can well understand why.

54. Before dealing in turn with each of the three main limbs of the local authority's case as I have summarised them in paragraphs 5 to 7 above, there are two vitally significant issues I must deal with first.

55. The first arises because it is common ground that X suffers from mild Type-II Van Wildebrand's Disease (vWD). The expert evidence is, however, at one, and conclusive, that, although vWD reduces the ability of the blood to clot *after an injury has occurred*, it does *not* affect the tensile strength of the tissues or of blood vessels. vWD does not affect the blood capillaries or cause them to break. So vWD cannot explain the tissue injuries. That was the expert view of Dr Will, which I unhesitatingly accept. vWD does *not* mean that a child's tissues are weaker and more susceptible to rupture. What it does mean is that once an injury has been suffered, the child may bleed – in the case of a bruise, bleed into the affected tissue – for longer.

56. The key expert in relation to vWD was Dr Will. In the course of his oral evidence I asked him some questions:

> "Q vWD has no impact of tensile strength of the blood vessels?
>
> A No, it is part of the coagulation system.
>
> Q If a vessel is ruptured, the degree of force to cause that is nothing to do with vWD?
>
> A No.
>
> Q Because it is a clotting disorder, the consequence is that there may be more blood and therefore a more visible bruise?
>
> A Yes.
>
> Q Is that the beginning and end of it?
>
> A Yes."

Dr Will had earlier explained that the coagulation system cannot be activated until there has been damage to a blood vessel; it is only *after* an injury occurs that the clotting system comes into action.

57. In short, vWD is incapable of being an explanation for any of the matters with which I am concerned.

58. The second issue concerns whether there are any other underlying or pre-disposing factors which might provide an explanation.

59. Leaving to one side the questions of Vitamin D deficiency and rickets, to which I return below, there is, in my judgment, no question on the totality of the evidence of any of these marks, bruises, injuries or fractures having been caused or facilitated by any underlying medical condition.

60. Dr Saggar was instructed to determine whether X suffers from a collagen or connective tissue disorder – in particular, Ehlers Danlos Syndrome (EDS) – and, if so, whether any such diagnosis would impact on the marks and bruises, torn frenulae or bones. Dr Saggar's evidence was clear and emphatic that there was no evidence of a

significant connective tissue disorder or any similar abnormality, no evidence to suggest that easy fractures were likely, and no evidence of any EDS type disorder that would lead to a torn frenulum or easy bruising. In my judgment, and I so find, none of this is capable of providing any explanation for any of the marks, bruises, injuries or fractures.

61. Furthermore, Dr Fairhurst could find no radiological evidence of osteogenesis imperfecta or metabolic bone disease. Dr Offiah found that X had no underlying medical conditions that would have predisposed X to periosteal reaction. At one stage in the litigation, the birth parents suggested that the birth father's ankylosing spondylitis might be an explanation; this was ruled out by Dr Fairhurst.

62. In short, and leaving to one side the questions of Vitamin D deficiency and rickets, none of this is capable of being an explanation for any of the matters with which I am concerned.

63. Against this background, I return to the local authority's case as set out in paragraphs 5 to 7 above.

64. I go first to the various marks and bruises listed in paragraph 5 above.

65. Following X's admission to hospital, Dr Maynard carried out a careful and meticulous external physical examination, recording what she saw both in the tabular form as set out in paragraph 5 above and on a body-map. I am entirely satisfied that she was scrupulous in recording what she saw, that she saw what she recorded, and that her descriptions of what she saw were accurate.

66. For the reasons I have already set out, vWD cannot be an explanation for any of the marks or bruises recorded by Dr Maynard. I am prepared to accept, as Judge Nathan accepted, that in relation to a very small number of the marks Dr Maynard recorded there may be an innocent explanation, but in relation to all the others there is no innocent explanation. They were all, I am satisfied, inflicted by some such mechanism as pinching, twisting, gripping or impact with a hard object.

67. Unsurprisingly, in this as in many such cases, medical opinion was unable to indicate whether all the marks and bruises had been inflicted on the same occasion or on a number of (and, if so, how many) occasions, nor to indicate the age of the bruises. Independent evidence from a number of health professionals who had seen X at home in the eight days following return home after birth contains no mention of any marks or bruising; two specifically record that they saw no marks or bruising. What, of course, was, and is, striking, is the number of these marks and bruises.

68. The birth parents have given varying accounts from time to time about the marks and bruises. They say that X "tends to bruise easily." They describe the marks as repeatedly coming and going, sometimes within a day. They suggest that some may have been caused by rough handing from a midwife during a domiciliary visit – a suggestion (dreamed up by them in desperation) which I unhesitatingly reject having heard her evidence – or possibly by the birth father holding X too tightly. The birth father points to what he says was paranormal activity within the house as a possible cause – an 'explanation' which is absurd. In evaluating their evidence, it has to be borne in mind that, as I find, at no time prior to the admission to RSCH had the birth

parents reported any marks or bruises to any of the health professionals with whom they came into contact.

69. Dr Maynard, as a treating clinician, merely recorded what she saw. She had expressed no view about causation. None of the relevant expert witnesses (Dr McGowan, Dr Michie and Dr Goddard) was prepared to accept that, absent some obvious explanation – and there is none –, a non-ambulant child of X's age could have this many marks and bruises. Dr Goddard, with vast experience as a consultant paediatrician, and having worked for 15 years in a safeguarding role, put the point very starkly in her oral evidence:

> "Children who don't cruise, don't bruise. X had … a lot of bruises. Babies do not bruise – and I have examined thousands – unless there's a history of trauma."

70. The question was explored with these witnesses as to whether there was any correlation between the sites of the bruises and the sites of the fractures (see further below) and whether, if so, the same mechanism was responsible for both. The debate was ultimately inconclusive and does not, in my judgment, assist me in coming to any conclusion in relation to either the bruising or the fractures.

71. At the end of the day, the reality is, in my judgment, beyond sensible dispute. Leaving on one side, as I do, the very few marks for which Judge Nathan was prepared to accept (as I do) that there might be an innocent explanation, this constellation of marks and bruises cannot be explained by any combination of such explanations as the birth parents have from time to time put forward. They were inflicted by one or other or both of the birth parents (like Judge Nathan I am unable to say which) using unreasonable force – by which I mean very significantly more force than would ever be applied in the course of the normal handling of a baby only a few weeks old.

72. I turn to the second limb of the local authority's case (see paragraph 6 above).

73. High quality medical photographs of the inside of X's mouth demonstrate beyond sensible contradiction that, when examined after being taken to RSCH, X had tears to both the upper lip frenulum (the ligament connecting the inside upper lip to the upper jaw) and the lower lingual frenulum (connecting the underside of the tongue with the floor of the mouth). For the reasons already given, vWD cannot explain these tears.

74. The evidence of the three relevant experts (Dr McGowan, Dr Adams and Dr Goddard) is to the same effect. Torn frenulae in children of this age are rare, very uncommon. Children of this age are not capable of causing such an injury themselves. As Dr Adams said in her oral evidence: "I cannot think of any explanation which could account for the child having done this [themself]." Frenulae are not torn during normal handling. The mechanism is impact directly into the mouth causing overstretching of the tissues. According to Dr McGowan (with whom Dr Adams agreed), in the case of young children typical mechanisms include "a blow from a fist to the mouth" or an object such as a feeding bottle being "rammed forcefully into the child's mouth." Dr McGowan said that she had only seen this injury in cases of inflicted injuries but accepted that such injuries can be "caused by an exasperated adult losing control and seeking desperately to quieten a persistently crying baby." In the course of her evidence before Judge Nathan, she made clear, in response to the

case being put on behalf of the birth parents, that careless, rough or clumsy handing was not enough; very excessive unreasonable force – a "ramming" action – was needed. Dr Adams opinion was that X "has most likely suffered from inappropriately forceful insertion of something such as a feeding bottle into [the] mouth probably on at least two occasions." She added: "It is difficult to know if this was intentional or not but I believe X would have cried out and blood would have been noticed more or less immediately by anyone who was for example feeding." She was unable to quantify the force required to tear a frenulum, though expressing the opinion that a carer would be aware that it was too forceful.

75. It is to be noted that, when the birth parents took X to RSCH, they did so because of blood in the mouth, and reported a similar event a few days earlier for which they had not sought medical assistance. Neither incident was linked by them with anything they had done or to any event they had seen. This suggests, as Dr Adams thought, though one cannot be certain, that X's mouth injuries were sustained on two separate occasions.

76. Mr Norton, Mr Archer and the others have taken me very carefully through everything the birth parents have said about this. These accounts are not entirely consistent and, significantly, as it seems to me, do not include any account of any occasion such as that postulated by Dr McGowan and Dr Adams. For example, the birth parents give accounts of occasions when X awoke screaming with blood in the mouth, but it is clear from the expert evidence, which I accept, that X could not have caused the tears to the frenulae. The furthest either went was in the birth father's admission, for example when being cross-examined before Judge Nathan, that on occasions he was "too heavy handed" when feeding X, though he denied ever "ramming" the bottle in and denied ever being rough with X.

77. I do not think that, even now, we have had anything like a full and frank account from either of the birth parents. It is quite clear, however, in my judgment, that these tears to X's frenulae could not have been caused by anything X did; that, whatever happened, must have gone well beyond rough handling; and that it will have required excessive and unreasonable force very significantly greater than anything the birth father (or, indeed, the birth mother) has been willing to accept. So much is clear. Can I go further? Judge Nathan, as we have seen, thought that this was consistent with recklessness, probably by the birth father, rather than, as he put it, a deliberate attempt to hurt.

78. Before Judge Nathan, as indeed before me, the local authority's case (see paragraph 6 above) was confined to an allegation in relation to only the upper lip frenulum. Even now, the local authority has never sought to amend the Schedule of Findings to include any allegation in relation to the lower lingual frenulum. How should I proceed? I am satisfied that no injustice will be done to the birth parents if my findings extend, as they do, to the additional tear. After all, they were given every opportunity before me to provide whatever explanations they wished in relation to each tear.

79. Despite the fact that, before me, the birth parents were faced with the additional allegation – that there had been a second tear, probably on a different occasion – I do not think there is any proper evidential basis for going further in relation to either tear

than Judge Nathan was prepared to go, namely that, in relation to each of the frenulae (as I find) what caused the tear was the application of excessive and unreasonable force applied recklessly, by the birth father, but not with a deliberate attempt to hurt.

80. I turn to the third limb of the local authority's case (see paragraph 7 above), based on what was revealed by the skeletal survey on 26 April 2013.

81. At the outset it is important to note a matter first raised by Dr Somers, though accepted by both Dr Fairhurst and Dr Offiah, namely that the radiography on that occasion was suboptimal, there being no localised (or coned) films taken both frontally and side-on. The experts differed as to the significance of this: Dr Fairhurst and Dr Offiah nonetheless felt able to reach clear conclusions upon the available radiography, while Dr Somers was much less confident. Thus, Dr Fairhurst said that the "images were of sufficient quality that even in the absence of cone views I remain confident about it." Dr Offiah said that the images were of sufficient quality to be "diagnostic."

82. The flavour of Dr Somers' concerns is well captured in three answers he gave during the course of his evidence before me:

> "We need high quality radiographs, localised films and follow-up. We didn't have that."

And then, in cross-examination:

> "It's confidence levels here – the diagnosis has such ramifications. Magnifying, looking over and over again, didn't meet my own personal standard of metaphyseal fractures."

And this:

> "I had a reasonable doubt regarding the presence of metaphyseal fractures. The concept of balance of probabilities is difficult with fractures. You either have one or not. It doesn't make sense to me. My opinion is that it has not been demonstrated to my satisfaction that there are fractures … Dr Offiah may be right … I have taken account of the matters raised by Drs Offiah and Fairhurst and I am on the other side of the diagnosis."

83. The first question to be decided is how many injuries / fractures X suffered, a matter on which the experts (from which group I exclude Dr Ayoub) are not all at one. The relevant experts, if one excludes Dr Ayoub, are Dr Fairhurst, Dr Offiah and Dr Somers. I shall take the alleged injuries / fractures in turn.

84. The local authority's first allegation is that the skeletal survey on 26 April 2012 revealed "Periosteal reaction due to periosteal injury on the shaft of the left ulna." Dr Fairhurst, Dr Offiah and Dr Somers are unanimous that X sustained an injury to the left ulna, the skeletal survey showing either a healing bowing fracture or (as the experts thought more probable) an injury to the periosteum surrounding the ulna.

Given his other concerns about the radiography it is important to note what Dr Somers said about the left ulna:

> "Without doubt, there is subperiosteal new bone formation in the image – it could be infection or tumour but these can be excluded. It only affects one bone. Trauma is the only credible explanation that would fit. I can't say exactly what the trauma is. You would want some history. The fact that there is none doesn't change the fact that having excluded all other causes, trauma is the only one left."

I must return to this below, but to put this answer in context, Dr Somers was emphatic that X did not have rickets.

85. In relation to the timing of this event, differing views were expressed by the experts, though in the event nothing, in my judgment, turns on this. Dr Somers thought the injury not less than 7-10 days old on 26 April 2013; Dr Offiah thought it at least 10 and not more than 28 days old; Dr Fairhurst, thought it had occurred no more than 6 weeks previously. What is clear, is that whenever the injury occurred, no medical attention was sought by the birth parents.

86. The local authority's other allegations are that the skeletal survey revealed "Metaphyseal fractures of the right and left proximal tibia" and "Metaphyseal fractures of the right and left distal femur." In relation to this, Dr Fairhurst and Dr Offiah were each unshaken in their opinions (a) that, despite the radiography being suboptimal, they were able to come to a clear conclusion, and (b) that the radiography demonstrated the existence of each of these metaphyseal fractures. Each stayed firm in their opinions despite the different opinion of Dr Somers.

87. It is important to note that Dr Somers did not say that these fractures did not exist; his position was, as we have seen, that their existence had not been demonstrated to his satisfaction. Thus, he was prepared to accept that Dr Offiah may be right.

88. In relation to the timing of these fractures, slightly differing views were expressed by the experts, though, again, in the event nothing, in my judgment, turns on this. Dr Fairhurst thought they were up to four weeks old on 26 April 2013; Dr Offiah thought between two and four weeks. What is clear, again, is that whenever the fractures occurred, no medical attention was sought by the birth parents.

89. The evidence of these three experts has been set out at some length and analysed in penetrating detail by all three teams of counsel in their written closing submissions. Dr Fairhurst and Dr Offiah explained in detail both what they observed studying the radiographs and the precise features in what they observed which enabled them each to conclude that what they were seeing was clear radiographic evidence of each of the fractures contended for by the local authority. Dr Fairhurst explained her practice as being always to view the images and come to her own view *before* reading the views of others, though then going back to reconsider in the light of any other differing conclusions (as here in the case of Dr Somers). Dr Fairhurst and Dr Offiah were clear in their evidence, and each maintained their position despite searching questioning and notwithstanding the different opinion of Dr Somers.

90. His view was that what was visible might be 'normal variants' rather than fractures. Dr Offiah had considered whether they were normal variants but concluded, giving reasons, that they were not: "they were more severe and larger than would be the case with normal variants." Dr Fairhurst, having, as she said, reconsidered matters in the light of other interpretations, was clear that: "the abnormalities I see are in excess of what I see as metaphyseal irregularity." Dr Somers, in contrast, said: "The most common variants … are not dissimilar to what we have here … I do not think we have nailed the diagnosis of metaphyseal fractures here."

91. The task for the court is potentially one of some difficulty, albeit that it focuses on a very narrow, if fundamentally important, point. I have read and heard the evidence of three eminent paediatric radiologists, who agree that X's bones have certain unusual features but respectfully – for each was properly respectful of the others – disagree about whether these are metaphyseal fractures or normal variants. Each, moreover, was careful to acknowledge that there were subtleties in the interpretation of radiographs and that they might be wrong and another might be correct.

92. Having considered and re-considered the evidence of all three experts, and the analyses of that evidence provided by counsel, I conclude, ultimately without any real hesitation, that I prefer the view of Dr Fairhurst and Dr Offiah to that of Dr Somers. I emphasise that this is *not* a matter of counting heads. In particular, I attach weight to the facts, first, that both Dr Fairhurst and Dr Offiah identified a range of factors on the images which, they said, and I agree, both explained and supported their opinions, and, secondly, that they were, in my judgment appropriately, confident in the views they expressed – confident but not, I emphasise, because they had closed minds; quite the reverse.

93. I turn to the question of what *caused* these injuries / fractures.

94. Likewise leaving on one side for the moment the questions of Vitamin D deficiency and rickets, Dr Fairhurst, Dr Offiah and Dr Somers are agreed that the injuries to the ulna were caused by a gripping or twisting force, causing the periosteum to be stripped away from the bone. That force would have been greater than any involved in the normal handing of a baby. In relation to the fractures, Dr Fairhurst and Dr Offiah are agreed that their infliction would have required a pulling and twisting force well in excess of normal handling and that they would have caused X distress and discomfort for several days. That was also the view of Dr McGowan. The evidence is that metaphyseal fractures in non-ambulant children are rare.

95. If these were inflicted injuries, the next question is who was responsible. At various times it has been suggested by the birth parents that they were the result of birth trauma. That was ruled out by Judge Nathan, and, having read or heard the evidence of Dr Morton, Dr McGowan and Dr Fairhurst, which I have no hesitation in accepting, there is, in my judgment, nothing in the suggestion. It was suggested before me that the metaphyseal fractures might have been caused by a midwife's rough handing of X during a domiciliary visit. The birth parents' accounts as to when this was, and as to the identity of the midwife, are unclear; if it is said that this was Ms Delaney, it was not put to her by the birth parents during the trial in the Crown Court and when it was put to her before me her denials of any rough handling were patently honest and sincere. Paranormal activity has also been suggested by the birth parents;

the suggestion is absurd and significant only as demonstrating their desperate attempts to come up with explanations for what, as I am satisfied, they are quite unable to provide an innocent explanation.

96. The birth parents have also suggested at various times that some or all of these injuries / fractures may have been caused by X flapping X's arms while "having a paddy" in a bouncy chair (on any sensible view highly improbable as a possible causative mechanism and in any event ruled out by Dr Fairhurst); by X twisting X's arms behind X's back while being picked up (Dr Offiah doubted that this would provide sufficient shearing forces); by the birth father's rough handling of X on various occasions when he bounced X on his knee and on one occasion when putting X into a Babygro (but the birth father has never accepted that he caused any of the injuries / fractures, the birth mother does not suggest that the bouncing caused any injury and does not recall any of this causing X distress, and in any event, given Dr Fairhurst's evidence, nothing which they describe would have generated the necessary force); by the birth parents on occasions holding X too tightly (which would not have generated the necessary force); by moving X's legs in a "bicycle" motion to assist relief from constipation (a mechanism which the experts agreed might result in fractures though what was described was, in their view, unlikely to have been done with sufficient force); and an occasion when X was pulled sharply out of the car seat by the birth father (an explanation which was ruled out both by Dr Offiah, who did not believe that what had been described would have generated sufficient twisting or shearing motion, and by Dr Fairhurst, who did not see how two legs could sustain fractures in this way). Dr McGowan likewise considered the birth parents' explanations to be unlikely.

97. All of this needs to be put into the forensic context. As Mr Norton and Mr Archer point out, the focus of the defence in the Crown Court was that X had rickets.

98. At the end of the day, this whole issue – what caused the fractures which I have found to have existed – comes down to this: Were they the result of Vitamin D deficiency and rickets? Or were they inflicted injuries caused by one or other or both of the birth parents?

99. I am entirely satisfied that X did not have rickets, just as I entirely satisfied that, even if X had some mild Vitamin D deficiency, it did not contribute at all to any of these fractures. In my judgment, Vitamin D deficiency and rickets can both be ruled out as having played any part, however trivial, in contributing to, let alone causing, any of the fractures. Each of the fractures was an inflicted injury, the mechanism being as described by the experts and involving, as the experts were agreed, a degree of force greater than any involved in the normal handing of a baby. None of the explanations, such as they are, provided by the birth parents is capable of explaining what happened. There is no innocent explanation. One or other or both of the birth parents – I am unable to say which – was responsible for these fractures.

100. I must explain at this point my conclusions in relation to the irrelevance as a possible explanation of both Vitamin D deficiency and rickets.

101. The simple fact, in my judgment, clearly demonstrated by the expert evidence, is that X did not have rickets.

102. Rickets, it is to be noted, is, as Dr Stanhope pointed out, a clinical syndrome involving much more than easy fracturing. There would be failure to thrive and growth failure. Rickets, were it to be present, would be reflected in the biochemistry and bone chemistry. The evidence supports none of this. Nor does the radiography.

103. The expert evidence from the radiologists (with the obvious exception of Dr Ayoub) was clear and unequivocal. The radiographs showed no indicators of rickets nor any other skeletal abnormalities. Dr Somers, who had clinical experience of a child who did have rickets, said, and never moved from this, that:

> "I can state beyond reasonable doubt that X does not have radiological evidence for rickets. Moreover X has a normal vitamin D level and normal bone chemistry. Therefore not only does [X] not have rickets [X] could not have rickets."

Elaborating, he said:

> "Bone density is normal and there are no significant Wormian bones in the skull … The skeleton is structurally normal."

Commenting on the quality of modern radiographical equipment, he added:

> "you can make a good bone look bad but it is impossible to make a bad bone look good."

104. Dr Fairhurst likewise said that radiologically there was nothing to indicate rickets. Dr Offiah was of the same view:

> "Bone modelling and density are otherwise normal with no features to suggest an underlying metabolic, brittle or any indeed any bony disorder (such as rickets or osteogenesis imperfecta) that might have predisposed X to easy fracturing."

105. Dr Goddard, another expert who had had clinical experience of actual rickets in children, likewise refused to accept that X had rickets. She said that she had treated many children with radiologically reported rickets "all of whom had biochemical abnormalities."

106. Dr Stanhope, with vast experience as a paediatrician and paediatric endocrinologist testing children and on the wards as a practising clinician, reported "normal bone chemistry" and said that none of the hallmarks of rickets were present.

107. The fact is, as I find, that there is no reliable evidence that X's bone chemistry is other than within normal range.

108. There is only one clear measurement of X's Vitamin D level, taken a few days after X's admission to RSCH – 68 n/mol. This unchallenged figure is significant for two reasons.

109. First, it does *not* demonstrate any significant Vitamin D deficiency. Dr Somers described it as being in the top 50% for children in the United Kingdom, saying that it

is enough to prevent rickets and should be regard as "normal". Dr Goddard said she would be "delighted" to find a reading at that level in her clinic: it was "not a low level in practice … in fact finding a level as high as 68 n/mol is unusual in my experience." Professor Fraser thought it a "very good" level for a child of X's age. Although Dr Fairhurst described it as "borderline" – which she elaborated as meaning not deficient but just below what most people would see as sufficient – she did not see it as a problem and agreed that there was no indication of compromised bone strength. Likewise, although Dr McGowan thought that it was very slightly below the quoted normal level,

> "this is a common finding and not enough to cause rickets … X's borderline-low Vitamin D level is of no clinical relevance, not being low enough to cause any problems such as rickets."

110. Secondly, if X had been Vitamin D deficient at birth (as suggested by Dr Shea), it would not have been possible for X in the time available to reach the level of 68 n/mol. Professor Fraser opined that it was "not possible" to get to 68 n/mol without supplementation. Dr Goddard, basing herself in part on her own clinical experience, said that formula milk would not have brought X up to so high a level in a matter of weeks.

111. It is clear that, when born, X's growth was at about the 50th centile. The view of both Dr Stanhope (a paediatric endocrinologist who is a recognised expert in child growth – Professor Nussey's expertise, in contrast, related to adults) and Dr Goddard, who had reviewed X's growth charts, was that there was nothing in X's growth that supported a diagnosis of rickets. Dr Stanhope said:

> "On the growth contained in the 'red book' … it appears that X has grown naturally for the first few months of … life and has continued to grow normally after this, without evidence of growth failure or 'catch up' growth."

He accepted the proposition that normal birth taken in conjunction with no 'catch up growth' and a reading of 68 n/mol meant that there was no evidence of Vitamin D deficiency. Dr Goddard likewise emphasised that X's growth trajectory was normal, which it would not have been if X had rickets.

112. I have no hesitation in concluding, therefore, that it is simply not possible to calculate X's Vitamin D level at birth by reference to the figure, weeks later, of 68 n/mol.

113. During the proceedings in the Crown Court, the case had been advanced on behalf of the birth parents that X had been Vitamin D deficient at birth. This led to two further lines of argument. Professor Nussey sought to estimate the birth mother's Vitamin D level, the proposition being that this would provide an estimate of X's level (that is, 70% of the mother's level). At his suggestion, analysis of the dry blood spot taken from X at birth and preserved on a Guthrie card was undertaken – in the event by Dr Shea, and some three years after the Guthrie card was produced.

114. Professor Nussey's calculation of the birth mother's Vitamin D level at the time of X's birth was significantly informed by research findings the relevance of which to the birth mother, given her ethnicity, was convincingly challenged before me by

Professor Fraser. He was adamant that the only way to know the birth mother's Vitamin D level was to take a sample – and there was none. I need not go into this in any more detail, for Professor Nussey wavered in his opinions, which became significantly less firm over time. What in his written report had been put forward as an "estimate" had become "an educated guess" by the time he gave evidence in the Crown Court and "a ball park guess" before me – in reality, truth be told, little more than speculation. And in relation to the biochemistry and bone profiles his end position was merely that they were "not inconsistent with" the presence of rickets.

115. In relation to Dr Shea's analysis of the Guthrie card, it foundered on two things.

116. First, there was telling evidence from Professor Fraser, which I have no hesitation in accepting, challenging the entire validity of the process. In particular: the extraction process had not removed other substances; the sample integrity was highly questionable, not least given its likely degradation over three years; the analysis of the sample generated a result that in one case was below the limit of detection and in the other case was exactly on the limit of detection. Research which Professor Fraser had undertaken since giving evidence in the Crown Court led him to the conclusion that the type of analysis in question is "fatally flawed", because the very act of putting blood onto a Guthrie card "significantly changes" the concentration of analytes and "significantly lowers" the concentration of Vitamin D. His opinion, robust and uncompromising, but carefully reasoned and certainly not dogmatic, was that Dr Shea's analysis "tells us nothing."

117. Interestingly, Dr Shea came very close to the same outcome, accepting that the chromatography (on which Professor Fraser had commented adversely) was poor and admitting that she could not tell whether it was the insufficiency of Vitamin D in the sample or its degradation that was the problem. Dr Stanhope shared Professor Fraser's reservations about the Guthrie card tests, giving additional reasons for caution (whether samples are taken in the winter months or in the summer and whether they are kept at room temperature or frozen).

118. Secondly, Dr Shea had to accept that there was a very significant margin of error in her calculations – as much as 40% or even more, she conceded.

119. At the end of the day, I have no hesitation in concluding that neither Professor Nussey's evidence nor that of Dr Shea provides any safe basis for coming to any conclusions at all in relation to either X's Vitamin D level at birth or the birth mother's Vitamin D level at the time of X's birth, nor, I should make clear, in relation to the wider question of whether X had rickets.

120. Before parting with this part of the case I should record the opinion of Dr Somers that, even with rickets, fractures are uncommon. They are rare and seen only in ambulant children with severe rickets.

121. Standing back from all the detail, the overall picture is deeply troubling. Over a few short weeks, during the first few weeks of life, and extending, I am satisfied, over some period of time before taken to RSCH, X suffered an extraordinary constellation of what, I am satisfied, were inflicted injuries for which there is no innocent explanation: the constellation of marks and bruises noted by Dr Maynard (excepting the handful for which there may be an innocent explanation); two torn frenulae; and a

number of fractures to different limbs. This was really serious child abuse, child cruelty. Whoever was the perpetrator must have known that X required medical attention. Even if someone was neither the perpetrator nor present at the time when injuries were inflicted, that person must have realised, even if only as time went by, that something was seriously wrong and that X required medical attention. Yet, until the final episode of oral bleeding, neither of the birth parents made any real attempt to obtain medical assistance for X, let alone to protect X from what was going on. Whoever was, or were, the perpetrator or perpetrators, both of the birth parents carry a high measure of responsibility for what on any view were serious parental failures.

122. One question which arises is what part in all thus may have been played by domestic violence. Here we are, in reality, almost wholly dependent on the confused, inconsistent, conflicting and unreliable evidence of the birth parents, for (some text messages apart) there is no evidence on the point from any external or other independent source – nothing for example, from the police. At the end of the day, and despite having examined and heard much evidence on the point, the simple fact is that I remain largely, though not completely, in the dark.

123. Neither of the birth parents was genuinely trying to assist the court on this or on any other issue. Much of their evidence was evasive; some was simply lies, designed to obscure and cover up the truth. As Ms Fottrell and Ms Cayoun appropriately submitted, the very wide range of the descriptions and explanations given by them from time to time is itself suggestive of a dishonest account. I agree also with their characterisation of the birth parents' evidence: explanations ranging from global ignorance to the highly specific and speculative; and evidence veering between the deliberately unhelpful and the absurd (for example, the suggestions that X had been injured in a paranormal event or had, at the age of no more than six weeks self-injured). And, at the end of the day, neither of the birth parents has been able to recall a single incident which, in the light of all the expert evidence, can actually explain *any* of the injuries.

124. The birth parents were young, somewhat immature and living in cramped conditions which may have made coping with a first child more difficult for them. That there were disagreements between them from time to time is admitted, though much played down, and I strongly suspect (not least in the light of text-messages passing between them and various admissions by the maternal grandmother, albeit later unconvincingly retracted) that the 'play fighting' of which they spoke went significantly further than they were prepared to admit and tipped over on occasions into domestic violence. I suspect also that the birth father may have found X more difficult to handle and been more prone to angry feelings than he was prepared to admit. But at the end of the day little of this really matters, for there are no findings I can safely make which would assist in identifying who was or was not a perpetrator. Moreover, it has to be borne in mind, given the constellation of inflicted injuries X suffered, and the period of time over which they were inflicted, that this is not a case of momentary loss of control of the kind that might be sparked by domestic discord, nor is there any suggestion from either of the birth parents of any incident of domestic argument or domestic violence as being linked to any of X's injuries. Nor is there anything to suggest that, apart from the various inflicted injuries X suffered, X was otherwise in any meaningful way an indirect victim of whatever domestic violence there may have been, albeit on one occasion X was actually in the birth mother's arms

during an altercation between them – X was, after all, a new-born who lived with the birth parents for only a short time.

125. Before parting from the birth parents, I ought to say something about the timing and asserted basis for their attempted withdrawal from the proceedings. I cannot accept their protestation that the motivation for this was concern for X's welfare and a recognition that there was little realistic prospect, whatever my findings, of ever being able to challenge the adoption order. *If* that had indeed been the case, they could have sought to withdraw much earlier. The truth, as it seems to me, is that, faced with the overwhelming weight of all the expert evidence which by then had been marshalled, they realised that 'the game was up' and cynically sought to withdraw, hoping that this would stymie any attempt to re-visit Judge Nathan's original findings and thus prevent those findings being vindicated. I agree with Ms Morgan and Ms Segal's evaluation: given the totality of the evidence now available, it is little wonder that the birth parents did not wish the court to examine it and that they sought by their actions immediately before the final hearing to ensure that it did not.

126. There is one final matter I should touch on. I received helpful submissions from counsel identifying various differences, as between the criminal and family courts, in the practice and procedure relating to expert witnesses, even if in substance the approach is the same. I do not, in the circumstances, think that any useful purpose would be served by any extended analysis and it is certainly no part of my function to draw adverse comparisons between two systems. For present purposes, beyond adding a reference to what Cobb J said in *In re AD and another (Children) (Fact-finding Rehearing)* [2016] EWHC 2912 (Fam), [2017] 4 WLR 23, paras 13-15, I need say only this. Nothing in the history of this unfortunate litigation gives me any cause for concern about the continuing utility and appropriateness of the processes and procedures in the family courts provided for in FPR 2010 Part 25 and PDs 25A-E. On the contrary, the system in relation to the expert evidence worked well, and as it should have done, both before Judge Nathan and before me.