Neutral Citation Number: [2018] EWHC 3734 (Fam)

Case No: DE08C02059

IN THE HIGH COURT OF JUSTICE
FAMILY DIVISION

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 31/08/2018

Before :

MR JUSTICE KEEHAN

- -

Between :

M	**Applicant**
- and -	
Derbyshire County Council	**1st Respondent**
- and -	
F	**2nd Respondent**
- and -	
X & Y (represented through their Children's Guardian)	**3rd and 4th Respondents**

- -

- -

Mr J Tughan QC and Mr M Bailey (instructed by **GT Stewart Ltd**) for the **Applicant**
Mr S Nuvoloni QC (instructed by **Derby County Council**) for the **1st Respondent**
Ms T Cook QC and Mr M Challoner (instructed by **Venters Solictors**) for the **2nd Respondent**
Mr M Johal (instructed by **Smith Partnership Solicitors**) for the **3rd and 4th Respondents**

Hearing dates: 31st August 2018

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Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

.....
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.

The Hon. Mr Justice Keehan :

Introduction

1. The applicant, M, seeks the court's permission to reopen findings of fact made by HHJ Watson on 6 January 2010. The application is supported by her husband, F, the second respondent. It is opposed by the local authority, Derbyshire County Council, and by the children's guardian.

2. The findings of fact which it is sought to re-open were made in the course of public law proceedings issued by the local authority in respect of the applicant's and the second respondent's two children X, who was born in 2005, and Y, who was born in 2007. (I shall hereafter refer to the applicant as 'the mother' and the second respondent as 'the father')

3. HHJ Watson found that the mother and the father could not be excluded from the pool of perpetrators in respect of two inflicted injuries sustained by Y namely a linear fracture to the right parietal bone and a metaphyseal fracture of the left femur.

4. On 7 February 2011 HHJ Watson made final care orders in respect of both children and on 4 October 2011 HHJ Orrell made placement orders. In consequence of which X and Y were placed together for adoption and subsequently were made the subject of adoption orders in respect of their prospective adopters.

5. Leading Counsel for both parents have made it clear and plain in their submissions that even if the application for permission to re-open the findings of fact made were ultimately successful and one or both of them were exonerated, neither parent would seek to challenge the adoption orders nor the placement of the children with their adoptive parents.

Background

6. For the purposes of this judgment I need go no further into the history of this matter than to consider the circumstances which led to Y's non- accidental injuries, as found by HHJ Watson, which I later refer to in this judgment when considering the expert medical evidence. The full history is set out in paragraphs 18 to 33 of the judgment of HHJ Watson of 6 January 2010.

7. The mother appealed the decision of HHJ Watson not to recuse herself from dealing with the welfare aspects of the case. On 11 January 2011 Wilson LJ, as he then was, viewed this application as a cynical attempt to obstruct the judge's ultimate disposal of the care proceedings. It was directed that the mother may not request that the refusal of permission to appeal be considered at an oral hearing.

8. On 7 February 2011 HHJ Watson made final care orders on the basis of her earlier findings of fact.

9. On 5 May 2011 Ward LJ refused the mother's application to appeal this decision of HHJ Watson.

10. On 23 September 2011 Munby LJ, as he then was, rejected the mother's application for permission to appeal the findings of fact made by HHJ Watson in 2010. He said the application was totally without merit and that the applicant may not request the

decision to be reconsidered at an oral hearing. Further he noted it was yet another cynical attempt by the mother to obstruct and delay the proceedings.

11. As I have mentioned above, on 4 October 2011 HHJ Orrell made placement orders in respect of both boys and dismissed the mother's applications for

    i) discharge of the care orders and;

    ii) post adoption contact.

12. Finally, I note that the mother has brought applications for judicial review of

    i) the local authority's refusal to change the social worker, and;

    ii) alleged breaches of the Data Protection Act 1998 by the local authority.

    Both challenges were dismissed.

13. I am invited by both leading counsel for the mother and for the father not to have regard to this litigation history of applications brought by the mother which, as I understand it, were supported by the father.

14. With the greatest of respect to leading counsel for the mother and for the father, I cannot ignore the litigation history. Where it takes me when I consider this application for permission to re-open the findings of fact is a different matter. It strikes me, however, that this mother, supported by this father, has at every stage not missed any opportunity to challenge, by whatever means, the findings and orders of the court or the actions of the local authority.

15. The approach made to various experts without any formal instruction of experts, only reinforces my foregoing views of the approach adopted by the mother, supported by the father. I refer to the seeking of opinions from the following experts:

    i) Dr Ayoub;

    ii) Professor Holick, a professor of Medicine, Physiology and Biophysics at the Boston University School of Medicine; and

    iii) Dr Chapman, an eminent consultant paediatric radiologist.

16. These medical experts were consulted following the mother having been diagnosed:

    i) in December 2014 with hypermobility type Ehlers-Danlos Syndrome, previously called Ehlers-Danlos Syndrome type 2 – by Dr Harrison, a consultant clinical geneticist; and

    ii) with Vitamin D deficiency in 2016.

Law

17. There is a broad census between counsel as to the law I should apply when determining this application to re-open the findings of fact made in 2010.

18. In the case of *Birmingham City Council v H, H & S* [2005] EWHC 2885 (Fam), Charles J said at paragraph 55:

> "In my view the approach *[of the family court to earlier findings]* has three stages. Firstly the court considers whether it will permit any reconsideration or review of, or challenge to, the earlier finding (here referred to by the parents as a review). If it does the second and third stages relates to its approach to that exercise. The second stage relates to, and determines, the extent of the investigations and evidence concerning the review. The third stage is the hearing of the review and thus it is at this stage that the court decides the extent to which the earlier finding stands by applying the relevant test to the circumstances then found to exist."

19. This approach was endorsed by the President in *Re ZZ and Others* [2014] EWFC 9 when he further described the three stages as follows:

> "The same three-stage approach applies, in my judgment, whether the issue arises before the same judge or a different judge, whether in the same or different proceedings, and whether in relation to the same or different children. I do not, with all respect to Baker J's tentative comment, think that different approaches are called for in different forensic contexts. The attempt to create such a forensic taxonomy would, I fear, be productive merely of satellite litigation. Of course, the *application* of the general approach in any particular case will reflect the circumstances of that case.
>
> So far as concerns the first stage I agree with what Hale J said in *In re B (Minors) (Care Proceedings: Issue Estoppel)* [1997] Fam 117 , in particular in the passage I have set out above. I add this: one does not get beyond the first stage unless there is some real reason to believe that the earlier findings require revisiting. Mere speculation and hope are not enough. There must be solid grounds for challenge. But for my own part I would be disinclined to set the test any higher. I have misgivings about McFarlane J's use in Birmingham (No 2) , paras 42, 55, of the words I have emphasised in paras 16–17 above. I suspect that in significant part they reflected the approach of Lord Nicholls in *In re H (Minors) (Sexual Abuse: Standard of Proof)* [1996] AC 563 . *106 Be that as it may, I think, with great respect to McFarlane J, that the nuance is wrong.
>
> So far as concerns the second stage, the ambit of the review or rehearing, I doubt that one can sensibly be prescriptive. Much will turn on the forensic context and the circumstances of the particular case.
>
> So far as concerns the third stage, the proper approach in my judgment, subject only to what I have said at para 33 above, is that spelt out by McFarlane J in Birmingham (No 2) in the passages I have quoted. There is an *evidential* burden on those who seek to displace an earlier finding—in that sense they have to "make the running"—but the *legal* burden of proof remains throughout where it was at the outset. The judge has to consider the fresh evidence alongside the earlier material before coming to a conclusion in the light of the totality of the

material before the court. I think that Charles J's phrase "a high test" is best avoided at this as at previous stages. I can well understand why, in the particular circumstances of Birmingham (No 1) , where there were concurrent findings of two High Court judges and the Court of Appeal, Charles J used those words, but to elevate them to a test—a legal principle—is unwarranted, unnecessary and potentially misleading. Indeed, I think with respect to Charles J that reference to "a high test" at the third stage is simply wrong, essentially for the reasons given by McFarlane J in Birmingham (No 2) at paras 42(iii) and 55."

20. In considering the approach of the court to the first stage, the President referred to the observations of Hale J, as she then was, in *Re B (Minors) (Care Proceedings: Issue Estoppel)* [1997] Fam 117 at pages 128-129 when she said:

> ""Above all, the court is bound to want to consider whether there is any reason to think that a rehearing of the issue will result in any different finding from that in the earlier trial. By this I mean something more than the mere fact that different judges might on occasions reach different conclusions upon the same evidence … The court will want to know … whether there is any new evidence or information casting doubt upon the accuracy of the original findings." (Emphasis added)."

21. The law relating to the re-opening of the findings of fact was recently summarised by Cobb J in *Re AD and AM (Fact Finding Hearing) (Application for Re-Hearing)* [2016] EWHC 326 (Fam). He endorsed the approach of the President in *Re ZZ* and referred to the observations of Hale J in *Re B.* He continued as follows at paragraphs 14-16 as follows:

> "I do not understand Munby P to be equating the test at 'stage 1' ("some real reason to believe that the earlier findings require revisiting": [33] of *Re ZZ,* see [12](i) above) with the test which is applied on an application for permission to appeal. That is to say, I do not have to satisfy myself that the mother stands a 'real prospect of success' of disturbing the original findings, or that there is 'some other compelling reason' why the case should be heard (see generally *CPR 1998 rule 52.3(6)-(8) / CPR 1998 rule 52.9* and *FPR 2010 rule 30.3(7)/(8)*). The test in these circumstances is not so exacting.

On this application (and others like it, I am sure) there are at least two powerful public interests engaged, and in tension with one another: the strong public interest in finality in litigation (see Charles J in *Birmingham City Council v H and others* [2005] EWHC 2885 (Fam)), in conflict (potentially at least) with the strong public interest in identifying accurately those who cause serious non-accidental injuries to children, wherever such identification is possible: see *Re K (Non-Accidental Injuries: Perpetrator: New Evidence)* [2004] EWCA Civ 1181 at [55]. This second policy consideration was further defined in *Re K* at [56]:

> "… it is in the public interest that children have the right, as they grow into adulthood, to know the truth about who injured them when they were children, and why. Children who are removed from their parents as a result of non-accidental injuries have in due course to come to terms with the fact that one or both of their parents injured them. This is a heavy burden for

> any child to bear. In principle, children need to know the truth if the truth can be ascertained".

Interestingly, the Court of Appeal's decision in *Re K* does not appear to have been cited to Munby P in *Re ZZ*. Had it been so, I suspect that it would have, in itself, provided a good illustration of a "real reason" for believing that "the earlier findings require revisiting".

In reviewing this case, I have been invited to accept that scientific and medical knowledge and expertise may be further advanced than it was three years ago, and that research into the medical presentation of complex infant abuse continues to "throw a light into corners that are at present dark" (*Re U, Re B (Serious injury: Standard of proof)* [2004] EWCA Civ 567). Finally, it is argued that I should approach the case on the basis that the medical evidence should be considered 'all of a piece' together; it is not possible, or appropriate, that I should compartmentalise the opinions, viewing the 2013 reports separate from the 2015 reports. They need to be considered side-by-side: per *Re T* [2004] EWCA Civ 558:

> "…evidence cannot be evaluated and assessed in separate compartments. A judge in these difficult cases has to have regard 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." (Emphasis by underlining added)."

22. I respectfully agree with the approach and/or observations of Charles J, the President, Hale J, as she then was, and Cobb J as set out above. The essential features of these four cases appear to me to be, when considering the application at the first stage of the process:

    i) whether the court will permit a reconsideration or review of or challenge to the earlier findings;

    ii) whether there is any reason to think that a rehearing will result in a different finding from that in the earlier trial: is there any new evidence or information casting doubt upon the accuracy of the original findings;

    iii) the test is not whether the applicant stands a real prospect of disturbing the original findings;

    iv) rather there must be some real reason to believe that the earlier findings require revisiting. Mere speculation and hope are not enough. There must be solid grounds for challenge;

    v) the recognition of the tension between the powerful public interest in finality of litigation and the strong public interest in identifying accurately those who cause serious non-accidental injuries to children wherever such identification is possible; and

vi) the court must have regard to the extent to which, if at all, medical knowledge and expertise may have advanced in the years between the original findings and the application to re-open the findings.

23. In the course of his judgement in *Re AD and AM* when he referred to the strong public interest in identifying accurately those who cause non-accidental injuries, Cobb J, as set out above, had said,

> "I suspect that [had *Re K* been cited to the President] it would have, in itself, provided good illustration of a real reason for believing that "the earlier findings require revisiting""

24. I do not consider that Cobb J intended by that comment to convey that the mere fact of a strong public interest in identifying accurately the perpetrator(s) of non-accidental injuries to children would, of itself, provide a real reason for granting permission at stage 1. An applicant must go further beyond relying upon this important public interest consideration and demonstrate that there are solid grounds for mounting the proposed challenge to the findings of fact made or that there is some real reason to believe that the earlier findings require revisiting.

25. In between the first date of my consideration of stage 1 of this application and the adjourned date, my attention was drawn to the recent Court of Appeal of *Re M (Children)* [2018] EWCA Civ 607. In the course of giving judgement Peter Jackson LJ made the following observations on the requirement of seeking permission to instruct experts in applications to re-open findings of fact, at paragraphs 26 and 27;

> "As Mr Rowley correctly identifies, the question of the admission of expert evidence and the application of a rehearing are two separate matters. However, in this case they cannot be considered in isolation as without admission of the evidence there would be no case for a rehearing. It is therefore necessary to consider the two matters separately, and then together.
>
> The admission of expert evidence in children proceedings is governed by s.13 of the Children and Families 2014, which provides:
>
> **13 Control of expert evidence, and of assessments, in children proceedings**
>
> (1) A person may not without the permission of the court instruct a person to provide expert evidence for use in children proceedings.
>
> (2) Where in contravention of subsection (1) a person is instructed to provide expert evidence, evidence resulting from the instructions is inadmissible in children proceedings unless the court rules that it is admissible.
>
> (3) A person may not without the permission of the court cause a child to be medically or psychiatrically examined or

> otherwise assessed for the purposes of the provision of expert evidence in children proceedings.
>
> (4) Where in contravention of subsection (3) a child is medically or psychiatrically examined or otherwise assessed, evidence resulting from the examination or other assessment is inadmissible in children proceedings unless the court rules that it is admissible.
>
> (5) In children proceedings, a person may not without the permission of the court put expert evidence (in any form) before the court.
>
> (6) The court may give permission as mentioned in subsection (1), (3) or (5) only if the court is of the opinion that the expert evidence is necessary to assist the court to resolve the proceedings justly.
>
> (7) When deciding whether to give permission as mentioned in subsection (1), (3) or (5) the court is to have regard in particular to—
>
> (a) any impact which giving permission would be likely to have on the welfare of the children concerned, including in the case of permission as mentioned in subsection (3) any impact which any examination or other assessment would be likely to have on the welfare of the child who would be examined or otherwise assessed,
>
> (b) the issues to which the expert evidence would relate,
>
> (c) the questions which the court would require the expert to answer,
>
> (d) what other expert evidence is available (whether obtained before or after the start of proceedings),
>
> (e) whether evidence could be given by another person on the matters on which the expert would give evidence,
>
> (f) the impact which giving permission would be likely to have on the timetable for, and duration and conduct of, the proceedings,
>
> (g) the cost of the expert evidence, and
>
> (h) any matters prescribed by Family Procedure Rules."

26. Later in the judgment he said at paragraphs 36-41 the following:

"As to (f), the timetable for the proceedings directly affects the welfare of the children. Here, the application to admit the evidence was being made after the fact-finding stage of the proceedings had concluded. This was not fatal to the application, but it was a consideration. Regard must be had to the principle of finality and, approaching three years since the allegations were first made, the emotional cost to the children of further prolonging the fact-finding process was always likely to be high.

Lastly, (h) requires the court to have regard to any matters prescribed by Family Procedure Rules. Here Ms Cheetham strongly submits that the court should have regard to the wholesale flouting of the provisions of Part 25 by the mother and by her solicitor. She refers to: the unilateral approach to Cansford in the middle of proceedings without the knowledge of the court or any other party; the disclosure to Cansford of police material that was covered by a nondisclosure undertaking; the absence of any letter of instruction; and the misleading by omission of Cansford, who were not told about the ongoing proceedings at all. Overall, Ms Cheetham argues that this state of affairs is flatly contrary to the philosophy relating to the instruction of expert witnesses as articulated by Wall J in *Re A (Family Proceedings: Expert Witnesses)* [2001] EWHC Fam 7 at [35-37]:

"The essence of case management in proceedings relating to children is that the process should be transparent, and that each party should know the case that party has to meet. It is equally important when it comes to expert evidence, that if such evidence is required in a case, the issues to be addressed by it should be identified at the earliest possible stage in the proceedings and debated at an early directions appointment, so that the briefs to be given to whatever expert or experts are to be instructed can be defined by the court and permission given by the court for the relevant documentation to be disclosed.

It is for the court to decide what expert evidence should or should not be obtained in any case, and it is in my judgment quite contrary both to the spirit and the letter of the approach to expert evidence which has developed since the implementation of the Children Act 1989, that one party, without notice to the other party or the court, should commission a report from an expert about which neither the court nor the other party knows anything.

It is equally important, in my view, that expert witnesses should always understand their role in the proceedings in clear terms. In particular, they must know the terms of the court order which defines their involvement, and the purpose for which they are being instructed. In my judgment, expert witnesses

> asked to write reports for proceedings under the Children Act 1989 are not only well advised to find out, but need to know precisely what the court requires of them in order that they can properly fulfil their obligations as experts to report fully and objectively to the court."
>
> I agree with Ms Cheetham's submissions on this point. The court should as a matter of principle be slow to admit expert evidence that has been irregularly obtained. Plainly, it will not stand on ceremony at the expense of child welfare, but if the rules are not enforced, parties are encouraged to ignore them. A lax approach will inevitably be felt to be unfair by other parties and satellite issues of this kind cause delay and increase costs. Moreover, although it has not apparently happened in this case, there would be nothing to stop a litigant shopping around, unbeknownst to the other parties, until they alight upon a favourable opinion. A response such as that of the Guardian (see paragraph 22 above) does not in my view give adequate weight to the importance of the proper procedures, which are there to serve the interests of children and of justice.
>
> I would suggest that in a case like this, where a court is faced with expert evidence that has already been obtained in breach of s.13, it should as one part of its thinking ask itself whether it would have granted permission to seek the expert evidence with which it is now presented as a *fait accompli*. That of course is not the only consideration, but to ask the question ensures that the requirements of the statute and the rules are not forgotten. In this case, had the mother made an application at the hearing on 26 April for permission to instruct a further expert, such an application would inevitably have been refused. The fact that she chose to ignore the rules is a matter the court should take into account.
>
> I therefore conclude that the considerations in this case weighed heavily against the admission of the Cansford evidence.
>
> I now turn to the application for a rehearing and the grounds argued by Mr Rowley at paragraph 21 above. In the same way as the judge, for this purpose I treat the Cansford evidence as if it were admissible."

27. In relation to this decision Mr Tughan QC, on behalf of the mother, submitted that this authority did not apply to the instruction of Dr Harrison or Dr Saggar because:

    i) Dr Harrison was not providing expert evidence she was in her letter of 17th December 2014 providing a clinical diagnosis. Her subsequent letter of 16th May 2018 was sought with the permission of the court; and

    ii) Dr Saggar's report was sought with the permission of the court.

No party took issue with this submission. I agree, these experts' opinions were in a different category to that being considered by the Court of Appeal in *Re M* (above).

28. It is conceded, however, that the position is quite different in respect of the reports, letters and/or emails from Professor Holick, Dr Ayoub and Dr Chapman. Mr Tughan QC submitted, with which Ms Cook QC, leading counsel for the father, agreed, that to refuse permission for these experts' reports to be admitted would in this case and in applications to reopen findings of fact more generally, hinder or prevent a parent being in a position to mount an application to reopen findings of fact.

29. The local authority and the guardian did not support this submission. For reasons I shall give in a moment neither do I.

30. When considering whether I should grant permission for one or more of the reports of these three experts to be admitted in evidence I have regard to and take account of the provisions of:

    i) s.13 of the Children and Families Act 2017, most especially the provisions of s.13(7);

    ii) Part 25 of the Family Procedure Rules 2010; and

    iii) Practice Direction 25.

31. The matters a court must consider are set out in s.13(7) CFA 2014 which are set out in paragraph 25 above.

32. For the purposes of this application the relevant provisions of FPR 25 are:

> "25.10.—(1) An expert's report must comply with the requirements set out in Practice Direction 25A.
>
> (2) At the end of an expert's report there must be a statement that the expert understands and has complied with their duty to the court.
>
> (3) The instructions to the expert are not privileged against disclosure.
>
> (Rule 21.1 explains what is meant by disclosure.)
>
> Use by one party of expert's report disclosed by another."

33. Similarly, the relevant provisions of Practice Direct 25B are as follows:

> "When experts' reports are commissioned before the commencement of proceedings, it should be made clear to the expert that he or she may in due course be reporting to the court and should therefore consider himself or herself bound by the duties of an expert set out in Practice Direction 25B *(The Duties of An Expert, the Expert's Report and Arrangements for An Expert To Attend Court)*. In so far as possible the enquiries

of the expert and subsequent letter of instruction should follow either Practice Direction 25C *(Children Proceedings – the Use of Single Joint Experts and the Process Leading to an Expert Being Instructed or Expert Evidence Being Put Before The Court) or 25D (Financial Remedy Proceedings and other Family Proceedings (except Children Proceedings) – the Use of Single Joint Experts and the Process Leading to Expert Evidence Being Put Before The Court).*

In particular, a prospective party to children proceedings (for example, a local authority) should always write a letter of instruction when asking a potential witness for a report or an opinion, whether that request is within proceedings or pre-proceedings (for example, when commissioning specialist assessment materials, reports from a treating expert or other evidential materials); and the letter of instruction should conform to the principles set out in Practice Direction 25C"

"**The expert's overriding duty**

An expert in family proceedings has an overriding duty to the court that takes precedence over any obligation to the person from whom the expert has received instructions or by whom the expert is paid.

Particular duties of the expert

An expert shall have regard to the following, among other, duties –

(a) to assist the court in accordance with the overriding duty;

(aa) in children proceedings, to comply with the Standards for Expert Witnesses in Children Proceedings in the Family Court which are set out in the Annex to this Practice Direction;

(b) to provide advice to the court that conforms to the best practice of the expert's profession;

(c) to answer the questions about which the expert is required to give an opinion (in children proceedings, those questions will be set out in the order of the court giving permission for an expert to be instructed, a child to be examined or otherwise assessed or expert evidence to be put before the court);

(d) to provide an opinion that is independent of the party or parties instructing the expert;

(e) to confine the opinion to matters material to the issues in the case and in relation only to the questions that are within the expert's expertise (skill and experience);

(f) where a question has been put which falls outside the expert's expertise, to state this at the earliest opportunity and to volunteer an opinion as to whether another expert is required to bring expertise not possessed by those already involved or, in the rare case, as to whether a second opinion is required on a key issue and, if possible, what questions should be asked of the second expert;

(g) in expressing an opinion, to take into consideration all of the material facts including any relevant factors arising from ethnic, cultural, religious or linguistic contexts at the time the opinion is expressed;

(h) to inform those instructing the expert without delay of any change in the opinion and of the reason for the change.

Content of the expert's report

The expert's report shall be addressed to the court and prepared and filed **in accordance with the court's timetabl**e and must –

(a) give details of the expert's qualifications and experience;

(b) include a statement identifying the document(s) containing the material instructions and the substance of any oral instructions and, as far as necessary to explain any opinions or conclusions expressed in the report, summarising the facts and instructions which are material to the conclusions and opinions expressed;

(c) state who carried out any test, examination or interview which the expert has used for the report and whether or not the test, examination or interview has been carried out under the expert's supervision;

(d) give details of the qualifications of any person who carried out the test, examination or interview;

(e) answer the questions about which the expert is to give an opinion and which relate to the issues in the case;

(f) in expressing an opinion to the court –

(i) take into consideration all of the material facts including any relevant factors arising from ethnic, cultural, religious or linguistic contexts at the time the opinion is expressed, identifying the facts, literature and any other material, including research material, that the expert has relied upon in forming an opinion;

(ii) describe the expert's own professional risk assessment process and process of differential diagnosis, highlighting

factual assumptions, deductions from the factual assumptions, and any unusual, contradictory or inconsistent features of the case;

(iii) indicate whether any proposition in the report is an hypothesis (in particular a controversial hypothesis), or an opinion deduced in accordance with peer-reviewed and tested technique, research and experience accepted as a consensus in the scientific community;

(iv) indicate whether the opinion is provisional (or qualified, as the case may be), stating the qualification and the reason for it, and identifying what further information is required to give an opinion without qualification;

(g) where there is a range of opinion on any question to be answered by the expert –

(i) summarise the range of opinion;

(ii) identify and explain, within the range of opinions, any 'unknown cause', whether arising from the facts of the case (for example, because there is too little information to form a scientific opinion) or from limited experience or lack of research, peer review or support in the relevant field of expertise;

(iii) give reasons for any opinion expressed: the use of a balance sheet approach to the factors that support or undermine an opinion can be of great assistance to the court;

(h) contain a summary of the expert's conclusions and opinions;

(i) contain a statement that the expert–

(i) has no conflict of interest of any kind, other than any conflict disclosed in his or her report;

(ii) does not consider that any interest disclosed affects his or her suitability as an expert witness on any issue on which he or she has given evidence;

(iii) will advise the instructing party if, between the date of the expert's report and the final hearing, there is any change in circumstances which affects the expert's answers to (i) or (ii) above;

(iv) understands their duty to the court and has complied with that duty; and

(v) is aware of the requirements of FPR Part 25 and this practice direction;

> (vi) in children proceedings, has complied with the Standards for Expert Witnesses in Children Proceedings in the Family Court which are set out in the Annex to this Practice Direction;
>
> (j) be verified by a statement of truth in the following form –
>
> "I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer."
>
> Where the report relates to children proceedings the form of statement of truth must include -
>
> "I also confirm that I have complied with the Standards for Expert Witnesses in Children Proceedings in the Family Court which are set out in the Annex to Practice Direction 25B- The Duties of an Expert, the Expert's Report and Arrangements for an Expert to Attend Court""

34. In respect of Dr Ayoub, I note there was no letter of instruction, it is unclear what material was provided to him by the mother, save for the imaging taken of Y's skull and left leg and there is no expert's declaration as required by FPR 25.10(2). The mother did not when referring this matter to Dr Ayoub comply with the provisions of FDR PD paragraphs 3.1 and 3.2 nor does it appear that the duties of an expert witness, as set out in FDR PD 25B were brought to his attention. There has been a wholesale failure to comply with the comprehensive requirements of PD25B.

35. When determining the issue of permission to admit Dr Ayoub's expert into evidence, I have regard to the decision of Peter Jackson J, as he then was, in *St Helens Council v M and F (Baby with Multiple Fractures – Re Hearing)* [2018] EWFC 1. In respect of Dr Ayoub's suitability as an expert witness he said at paragraph 42,

> "It is not seriously disputed between the parties that if the Family Court had been asked to approve the prior instruction of Dr Ayoub as an expert witness, it would have been unable to do so. There are two fundamental reasons. Firstly, he does not have the necessary expertise to offer an opinion to a court on the origin of radiological appearances in infants, particularly pre-term infants, as they are a patient cohort of which he has no clinical experience. Secondly, his approach is shot through with the dogma that child abuse is over-diagnosed. It does not matter for this purpose whether he is right or wrong. The expert with a scientific prejudice may perform a service to science by asking questions that challenge orthodoxy, but be unsuited to be an expert witness, a role that requires objectivity when giving answers."

36. Jackson J continued:

> "Nothing in Dr Ayoub's evidence in the present case led me to a different view. He made himself available at an early hour at personal inconvenience and gave his evidence in a serious manner. However, his evidence was characteristic of his general approach. Having taken up a position, he advanced it with the tenacity of an advocate and was dismissive of alternative possibilities. He entertained no doubts about the correctness of his opinion, a dangerous mindset for any expert witness."

37. He concluded at paragraph 44:

> "I therefore conclude that the family or criminal courts in England and Wales are unlikely to find that Dr Ayoub meets the requirement that an expert witness must be objective and unbiased. At all events, if it is proposed that he should give evidence in any future case concerning fractures in infants or young children in this jurisdiction, the relevant court should be made aware of the matters contained in this judgment."

38. In an email dated 24th July 2015 Dr Ayoub set out his preliminary opinion as follows:

> "I did look over the images,
>
> the skull line is not an acute fracture. It is likely a fissure, possibly an old fracture, but in fact, there is a shorter but similar line on the right side
>
> I do not believe the fissure has anything to do with the scalp swelling
>
> the femur was not acute fracture, it was likely a residual from development, and could have been residual defect from earlier life rickets. There was no signs of active rickets and at most some evidence of advances healing rickets from early infancy"

39. In a subsequent letter dated 18th August 2015 Dr Ayoub set out his qualifications and his academic and clinical experience. He set out his summary of x ray findings, namely:

> "1) Y did not appear to have a skull fracture. There were bilateral suture variants in the parietal regions, more prominent on the right side. There was soft tissue swelling of the scalp nearby but not directly overlying the right sided fissure. There was sclerosis along the margins of the defects, also supporting a normal developmental variant.
>
> 2) There is flaring of the bilateral distal femurs. There was irregularity along the medical aspects of each lower femur, more prominent on the left side. This is most likely a variation of the perichondral ring. Follow-up examinations failed to

> demonstrate a healing response known to occur in fractures, supporting the notion of a normal variant.
>
> In conclusion, Y did not appear to have evidence of a skeletal fracture. I have enclosed two papers that describe the nature of both the skeletal variants I have discussed with this brief report (Shapiro, 1972 and Kleinman 2009)."

40. There are two important matters to note:

    i) Dr Ayoub is not a qualified paediatric radiologist; and

    ii) his opinion that the x rays did not demonstrate evidence of any fractures is completely at variance with the consensus of expert medical opinion before HHJ Watson in 2010 and is contrary to the expert opinion of Dr Chapman.

41. In light of the observations of Peter Jackson J in the *St Helen's* case (above), I would not have granted permission to seek an expert report from Dr Ayoub. In light of the breaches of s.13 CFA 2014, FPR 25 and PD25A, I am satisfied the opinion of this expert was irregularly obtained. There is other expert evidence available to me: s.13(7)(d) CFA 2014. In all of the circumstances I am wholly satisfied that I should refuse permission for this expert's report to be admitted in evidence.

42. The criticisms made in paragraph 35 above in respect of the instruction of and report of Dr Ayoub apply with equal measure to the instruction and report of Professor Holick.

43. Professor Holick's report is dated 18th August 2015. In it he recorded the fact of a conversation he had with the mother but not the content of the same. He referred to having reviewed 'the information and medical records you provided me regarding your son (sic) Case" but does not specify the information he was given nor identify the medical records he received.

44. Professor Holick is, as set out in his report, a professor of Medicine, Physiology and Biophysics at the Boston University School of Medicine. He specialises in endocrinology, diabetes, nutrition, Vitamin D and bone fragility research. In his report he said of his clinical experience:

> "As Director of the Bone Healthcare Clinic, I am responsible for reading all of the bone densities performed at our hospital. I have seen many children and adults with this genetic disorder who have lower bone density than was appropriate for their age. I have personally seen children and adults with this disorder who have had multiple fractures with minimum or no trauma as well as easy bruisability and soft tissue swelling."

45. The opinion on Y set out in his report is as follows:

> "It is with a high degree of medical certainty that if your son Case has the same genetic disorder as you and several of your family members have this could help explain the soft tissue

> swelling observed over the right temporoparietal area of the skull and the symmetrical bilateral fissures that were observed. This could also explain the so-called femur fracture. Although there is question that this could be a residual from development even if it was a fracture this could be easily explained by the underlying bone fragility genetic disorder Ehlers Danlos/hypermobility syndrome that your son likely has. I would be happy to see Case in my clinic to determine if he does have this underlying bone fragility genetic disorder."

46. Mr Tughan QC and Ms Cook QC both submitted that the issues of Ehlers Danlos Syndrome and its potential connection with resulting bone fragility and/or fractures is a fast-developing area of medical science and is in some aspects controversial. It is, therefore with, real concern to read that Professor Holick expressed his opinion in the terms in which he did, namely 'It is with a high degree of medical certainty' etc. Professor Holick had not undertaken a medical examination of the mother nor a medical examination of Y, whom he referred to throughout his report as 'Case'. I know not why. Crucially there is no explanation, cogent or at all, in his report as to why he could express his opinion with 'a high degree of medical certainty' in what is asserted to be a fast developing area of medical science which is in some aspects controversial. Professor Holick provided no clinical, medical or factual evidence to support his opinion. There has been a wholesale failure to comply with the comprehensive requirements of PD25B.

47. In the circumstances set out above I am satisfied that Professor Holick's expert report was irregularly obtained. Professor Holick is not a paediatric radiologist. I am not aware of his expertise to provide an opinion on the interpretation of the radiographs as he purports to do. It may be he has relied on the opinion of Dr Ayoub. In light of my conclusions about Dr Ayoub's report in this matter, such reliance undermines the reliability of Professor Holick's subsequently expressed opinions.

48. In the premises I am satisfied I should not give permission to admit Professor Holick's report into the evidence in this application.

49. The position in relation to Dr Chapman is wholly different. He was not formally instructed as an expert in the original care proceedings. Prior to the issue of those proceedings Dr Chapman was asked by Dr Halliday, Y's treating consultant paediatric radiologist to give a second blind opinion on whether Y has sustained fractures. The mother had asked the treating clinicians to seek an opinion from an independent consultant paediatric radiologist. Dr Chapman responded in a report dated 7th October 2008 in which he said:

> "The parietal skull fracture does not in itself differentiate between accidental and non accidental injury, but the carers should be able to explain significant head trauma in a non-ambulant child. The presence of a metaphyseal fracture adds weight to the opinion that the skull fracture is more likely to be a non-accidental injury. A metaphyseal fracture is the result of a significant pulling or twisting force applied to a limb. In the absence of an accident that provides such a force this injury is a significant pointer to a non-accidental injury. The metaphyseal

> fracture is difficult to age. It is someway from being fully healed, expected at about six weeks post-injury."

50. In 2016 he was sent an email by the mother's solicitors asking a number of questions. Although not a formal letter of instruction, the email dated 2nd August 2016, sets out the background, the findings of fact made by HHJ Watson, the update position in respect of the mother's health and then sets out a number of questions. Dr Chapman responded in an email dated 4th August 2016. The relevant extracts are as follows:

> "A radiology evidence was:
>
> - A skull fracture with overlying swelling and haemorrhage deep to the fracture site. This could be accidental or non-accidental but the absence of a causative history in a non-ambulant infant raises a serious concern about an inflicted injury (or an accident that a carer is unwilling to disclose). The swelling and intracranial haemorrhage are manifestations of impact head trauma even if the line is excluded from consideration. It is illogical to suggest that the line situated between these two findings is something other than a fracture and even if the line could be shown to be not a fracture the conclusion that there had been an impact persists. I note the comment from Prof Auer (who, I believe is not a paediatric radiologist or a paediatric neurologist, although I am happy to be corrected) that the swelling was not at the exact site of the fracture. I do not recall there being a significant disparity in the relative positions, and it must be remembered that bleeding into the subgaleal space (between skin and bone) or into the space beneath the periosteum [lining] of the bone is bleeding into 'a space' and there is no reason why it had to be confined to the actual site it originated from.
>
> - Follow up X rays showed that the line resolved and this was believed to provide greater support for a fracture than a normal fissure. The absence of signs of healing e.g. callus, is what is expected for a healing skull fracture. Skull fractures never show callus. The membranous bone of the skull is different to the cartilaginous bone elsewhere in the skeleton.
>
> - A metaphyseal fracture of the lower end of the left femur. Metaphyseal fractures (classic metaphyseal lesions/CMLs) have a significant association with non-accidental injury and the presence of this fracture also has a significant influence on the likely cause of the skull fracture."
>
> "Considering now the recent medical information about M, does the diagnosis given you cause for concern in relation to your original conclusion?

No. Even if it could be shown that Y was vitamin D deficient at the time of the fractures (which it cannot), it is not a recognised cause of skull or metaphyseal fractures. Ehlers-Danlos type 3 is not a cause of fractures in infancy. If it was an exceptional cause of fractures in this 9-month-old non-ambulant infant, it would be expected that further fractures would follow now that Y is an active (presumably) 8 year old. Osteogenesis imperfecta is a much more severe collagen disease than EDS, but even this condition skull fractures are no more common than in the general population and metaphyseal fractures are very rare, only being found in children with very severe disease."

"There is no published evidence to my knowledge that described the radiographic features of asymptomatic or sub-clinical vitamin D deficiency only, without any of the above other features of rickets. In fact, the current published data is more towards excluding this as a possibility.

"More recently, a group of 33 experts from many nations met to thrash out universally acceptable global recommendations regarding the definition, diagnosis, management and prevention of rickets in children. The recommendations/conclusions included the following statements:

- Children with radiographically [X-ray] confirmed rickets (not a feature of Y's X-rays) have an increased risk of fracture.

- Children with simple vitamin D deficiency are not an increased risk of fracture."

"Ayoub et al [A critical review of the classic metaphyseal lesion: traumatic or metabolic *AJR* (2014) **202**:185-196] raise a concern that metaphyseal fractures may actually be a manifestation of rickets and not the result of trauma. I urge caution when reading the views of these authors. Much of the paper is a discussion of histopathological changes, and a major criticism by these authors that previous publications on metaphyseal fractures did not include pathologists as co-authors [not true; Kleinman (2014) Classic metaphyseal lesions. DOI:10.2214/AJR.14.12532]; although interestingly only one of the authors of this paper is a pathologist and the only radiologist (Dr David Ayoub) is not, I believe, a board-certified paediatric radiologist. I believe Dr Ayoub probably had a biased viewpoint, having been quotes elsewhere saying 'I do not believe that any of the fractures that I have seen have been the result of real physical child abuse', and 'almost 100% of cases I look at [in the 3-5 cases a week that he looks at for defence lawyers] have rickets'. One of the other authors (Dr Marvin Miller) is a proponent of an America version of 'temporary brittle bone disease'. (You will be aware that Dr

> Colin Patterson who proposed such a diagnosis in this country was struck off the medical register). A search on Google indicates that Dr Ayoub, has opinions on a number of issues outside his own expertise, including vaccinations as part of a population control plot. It would also be appropriate for you to know that the Ayoub et al publication was criticised in an accompanying paper in the same issue of that journal [Wood BP (2014) Commentary on "A critical review of the classic metaphyseal lesion:traumatic or metabolic?" *AJR* **202**:197-198] and by The Society for Paediatric Radiology Child Abuse Committee [DOI:10.2214/AJR.14.12670]. The latter concluded "Given the stakes involved, we think that the approach of Ayoub et al is less 'critical' than dangerous and that children and families deserve better'."
>
> "On the basis of the new information you have sent and the increased knowledge in the published medical literature, my views are unchanged."

51. The email from the mother's solicitors to Dr Chapman does not refer to PD25B and Dr Chapman's email does not contain the declaration required by FPR 25.10(2) and PD25B paragraph 9.1(j). However, Dr Chapman is an eminent consultant paediatric radiologist. I have read his reports and heard or received evidence when at the Bar or on the bench from him for in excess of 25 years. I am in no doubt that when responding in his email he had well in mind the duties of a forensic medical expert.

52. In these circumstances I am satisfied I should give permission for his report of 4th August 2016 to be admitted in evidence.

Evidence

53. Dr Harrison, in a clinical setting, had, in December 2014, diagnosed the mother with hypermobility type Ehlers-Danlos Syndrome. In her letter, following a consultation with the mother, of 17th December 2014 she concluded as follows:

    (a) There is no specific gene known to cause this condition and there may be a number of different genetic factors that can contribute.

    (b) Based on the history provided to her by the mother and the GP she stated:

    > "I felt her problems were consistent with hypermobility type Ehlers-Danlos Syndrome which is also sometimes referred to as Joint Hypermobility Syndrome. I did not feel that she had signs of Classic Ehlers-Danlos Syndrome despite the abnormal scar around her knee as this is a particularly difficult position for scars to heal. Since clinic I have also reviewed her photographs with colleagues who are in agreement with this."

    (c) Her skin "did not have unusual extensibility" which is one of the diagnostic features of classic EDS.

    (d) "It is not usually linked to bone fragility and a susceptibility to fractures."

54. Following the directions hearing on 1st May 2018 Dr Harrison was asked a number of agreed questions. In a short report dated 16th May 2018 she replied that:

> "In clinic I explained that M's features were consistent with a diagnosis of hypermobility type Ehlers-Danlos syndrome. As she had a couple atrophic scars, I said that I would take photographs of these and review them with colleagues to check that they agreed with my assessment. Following clinic, I reviewed these photographs with colleagues who agreed they were *not* suggestive of classic Ehlers-Danlos syndrome and I included this information in my letter, which explains that my assessment remained that her diagnosis was hypermobility type Ehlers-Danlos syndrome, and that my colleagues agreed with this diagnosis. The diagnosis is made on the basis of history and examination, as there is no genetic test for this condition."

55. During the course of the hearing on 27th June 2018 she was asked a further supplementary question. In her absence a fellow consultant geneticist replied as follows

> "As I do not want to delay the proceedings, I have spoken to one of her colleagues, (Dr Eason, Consultant Geneticist) who has confirmed that the two conditions you refer to are one and the same and it is just terminology has changed."

56. The mother was tested for Vitamin D levels, and other investigations, in 2016. The print out of the test results dated 21st March 2016 records in respect of Vitamin "Below low reference limit. Vitamin D less than 30nmol/L [the mother's result was <12 nmol/L] are consistent with Vitamin D deficiency. Provided patient not hypercalcaemic, consider appropriate Vitamin D therapy."

57. There is no evidence before me explaining for how long a period before March 2016 the mother had been Vitamin D deficient nor for how long after March 2016 she continued to remain deficient.

58. It was submitted on behalf of the mother that if her condition of hypermobility type EDS had been passed onto Y and/or he too was Vitamin D deficient, this could provide an explanation for his fractures. Accordingly, it was submitted I should conclude the mother had satisfied the Stage 1 test and I should give permission for the instruction of Dr Saggar, the very experienced consultant geneticist, to investigate the mother and, possibly in due course, Y and to report on his opinions and conclusions. I considered it would be helpful to have an initial opinion from Dr Saggar before I decided the Stage 1 issue.

59. It was agreed by all counsel and advocates that Dr Saggar should be instructed and invited to answer the following three questions:

    i) If a Mother is confirmed as having a diagnosis of the condition formerly known as Ehlers-Danlos Syndrome type 3 and that is passed on in full to the child (aged 9 months) might that cause the child to fracture more easily and/or with lesser force than a child without that diagnosis?;

ii) What tests or further information if any would be necessary to answer this question?; and

iii) Please can you let us know the timescale and cost of answering these questions.

Accordingly adjourned the application part heart to await the response of Dr Saggar.

60. Dr Saggar's report in response to the above questions is dated 2nd July 2018. The relevant extracts from this report in response to question 1 are:

i) "In the question posed, it is stated that '…Ehlers-Danlos Syndrome type 3…is passed on in full to the child…' I have assumed therefore, that the mother has significant joint laxity and other features to establish such a diagnosis. If passed in 'full' to the child then I assumed that the child also has significant joint laxity which is over and above that seen in babies ages 9 months. This would be unusual in such a small child and suggests a significant connective tissue disorder.

Given that I am not able to identify if the mother and or the child fulfil the 2017 revised criteria and I also do not know the site of the facture(s) or any other clinical features, my considered response in the context of this limited information is as follows:

As a stand-alone statement, a direct susceptibility to fractures without any memorable event or force, would not be expected to be part of the spectrum of problems associated with hypermobility type EDS (hEDS). Indeed, the presence of fracture should direct the physician to consider other forms of EDS or alternative causes for the fracture(s).

Therefore, given the possible diagnosis of hEDS/EDS type 3 in the mother, even if passed down to the child in its full form, I would not expect hEDS to cause fractures. This was my opinion previously and remains unchanged";

ii) "Children with hEDS are prone to fall over more often and have poor balance. If a child is falling over, then a force is being applied and this may cause fracture. How much force and how this force is applied to produce the fracture is completely unknow in hEDS and or hEDS spectrum. In the child described, he is aged 9 months and so I doubt would be walking. This needs to be clarified.

Given the joint laxity and more extreme range of movement across joints in children and adults it might be argued that there would be less risk of fracture, but a greater risk of joint sprain and or ligament/tendon tearing, due to the intrinsic weakness. Leverage forces on the bone would be less due to the increased range of movement of the joint. In other words the joint would dislocate rather than the bone fracture. Conversely if hEDS is a connective tissue disorder of collagen, then there may be other factors at play that render the bone less tolerant of any flex.

> In such circumstances it is valuable to go to the clinical setting. In my clinics, I do not identify a history of fracture in young babies and or children with hEDS that is unconnected to any history of seemingly appropriate trauma/force. I do not do forensic analysis of the forces described in such circumstances but apply common sense and experienced clinical judgement within the clinic, when deciding if I consider a force to be appropriate or not.
>
> I do not know if there is any history of any force that was associated with the fracture(s) seen in this child.
>
> Decreased bone density has been described in hEDS in adults. Decreased bone density in very young children has also been described although children under the age of 5 have not been studied to my knowledge. The association that any reduced bone density may have to actual fracture, in children with 'Ehlers-Danlos type 3', remains controversial. In the papers I have read, there is no description of any fracture in the children, despite reduced bone density, in the absence of any gross evidence of a connective tissue disorder."; and

iii) "It is possible therefore that a child with hEDS may fracture more easily after lesser force than a child without that diagnosis, if there are other factors or elements that might in themselves predispose to fracture."

61. In response to question 2, he said:

> "I would need to know the site and number of fractures; the clinical findings that supported the diagnosis of hEDS; knowledge of any family history of fracture; any history of force or event associated with the fracture; information on any other evidence of a collagen disorder such as bruising or bleeding; knowledge of any other features on the X-ray to suggest a metabolic bone disorder or reduced bone density. In other words, details of the case and consideration of all the clinical evidence and family history."

62. I note that Dr Saggar's views and opinions are based on the premise set out in question 1 namely that the mother 'has passed in full' to Y her condition of hypermobile EDS. There is no evidence that Y suffered or suffers from this condition or any other form of disorder of connective tissue.

Submissions

63. The principal submissions made by Mr Tughan QC on behalf of the mother may be summarised as follows:

i) "The evidence of an expert such as Prof Holick, with his direct experience of the impact of EDS is enough of a real basis for such a re-opening to be allowed, in the context of the EDS diagnosis being unknown at the time of the original fact-finding investigation. However, on behalf of M, her case does not rest there.";

ii) "Attached to this submission is a clip of research papers received from Dr Saggar in a case heard in the East London Family Court in early 2018. That clip of papers has a pagination that will be used as a reference point for this submission. The simple proposition that we contend for is that EDS type 3 (hypermobility) is uncontroversially recognised as causing a propensity to fracture and/or to weaken adult bones. We recognise and accept that there is less information available in relation to the interplay between EDS type 3 and the skeleton of a child.";

iii) "It will be well known to this Court that a large amount of bone mineralisation has to be lost before it is apparent on x-rays. We submit the figure is 40%. Accordingly, the Court must be cautious when evaluating the strident evidence of Dr Chapman as set out (above) in his e mail. In fact, the developing understanding of the inter-play between EDS and bone strength tends to a much more subtle approach than provided by Dr Chapman.";

iv) "We submit that the way forward is to ask the experts whether there is enough evidence to establish the link "on paper". Given the maternal and grand-parental diagnoses we posit that there <u>may</u> be enough to reach a conclusion about the presence of EDS in Y. We recognise that may be a submission too far but suggest that an answer will be readily available to the experts we seek to instruct. M does not have to establish such a link on the balance of probabilities now.";

v) "The interplay between a vitamin D deficiency or insufficiency and bone strength when there are no radiological signs is controversial.

The interplay between a vitamin D deficiency and EDS is at the cutting edge of medical understanding currently. The 2017 Holick paper (referred to above) is the basis of discussion in relation to such interplay. That paper specifically links the mis-diagnosed non-accidental injury to such biochemical findings.";

vi) "The investigation that is required relates primarily to the force needed to cause the injuries seen. Both EDS and Vitamin D issues in a child can impact the skeletal strength of a child prior to any sign of such issues being seen radiologically.";

vii) "Y was an active, "cruising" child. This was the accepted evidence before HHJ Watson:

> "Y at the time was 9 months old and described by P as at the developmental stage whereby he could pull himself up, he could walk around by holding onto the furniture, he could pull himself up if holding on to the carer's fingers and was crawling and belly crawling. His Mother described him as a very active child."; and

viii) "It follows from such evidence that the prospect of an un-witnessed accident was a serious possibility that HHJ Watson had to contend with. If the Court below had known that Y's bone mineralisation was less than might be expected ten the judicial analysis might have been very different. Un-

witnessed accident is even more important as a hypothesis in a case of a classically silent fracture such as a metaphyseal fracture".

64. In light of Dr Saggar's report Mr Tughan QC made the following submissions:

i) "Dr Saggar asserts that:

- Decreased bone density has been described in adults with hEDS
- Decreased bone density had been described in very young children although children under the age of 5 have not been studied to my knowledge.
- The association that any reduced bone density may have to actual fracture in children with EDS type 3 remains controversial
- Patients with hEDS may also overlap at a genetic level with other forms of EDS or other connective tissue disorders. Some children with EDS may harbour a gene for mild OI
- There are several genes identified that can lead to spontaneous fractures or fractures after lesser force but are not associated with the expected clinical features of OI
- A recessive disorder whereby the parents are both carriers should be considered. There are circumstances where the parents will have no history of fracture but the child may inherit two copies of a deleterious gene and have a recessive form of OI
- Spontaneous new mutations in the gene (COL1A1/COL1A2) need to be considered"; and

ii) "The ultimate conclusion of Dr Saggar is that:

It is possible therefore that a child with hEDS may fracture more easily after lesser force than a child without that diagnosis, if there are other factors or elements that might in themselves predispose to fracture"."

"We submit that the further investigations of Dr Saggar are necessary. At what stage in the ZZ investigations occur is less important than that they do occur.

65. Ms Cook QC on behalf of the father supports and adopted the submissions made on behalf of the mother. She made the following principal additional submissions:

i) "It cannot be emphasized enough that the medical field had moved on considerably since 2008; that until the case of Re EB (2013) attached, the courts and the medics were oblivious to the issues which may be caused by EDS alone or in combination with other genetic disorders. The landscape is now completely different, in a similar way to the evolution of cases where low level falls were previously ruled out as causative of head injuries, the medics and the courts now look at that which a much more open mind. World renown experts of the calibre of Mr Richards, now say "I never say never and 15 years

ago I would have ruled it out". It is in that context that justice requires this case to be reconsidered."; and

ii) "Evidence of fall/symptom or memorable event.

The court suggested on the last occasion that there was not memorable event or symptoms. Two issues arise from this:

In the course of her police interview, 5.11.08 the Mother tells the officer that the day of the presentation to hospital there was an event when Y was in his high chair and was crying and could possibly have [injured his head];

Further or in the alternative the court took no account of the research that a substantial cohort of children do not demonstrate those pain symptoms which would thought as a usual (See Farrell 2011 research paper attached). This is of particular significance here as the Mother tells the officer of an incidence where, the health visitor was present and Y ran in to a fire guard. The Health Visitors commented that she would have expected him to have been "hysterical" but that he "just pulled himself up, laughed and off he crawled".

66. Therefore, it is submitted that the mother has established solid grounds to challenge the earlier finding and/or established that there is some real reason to believe the earlier findings require revisiting.

Accordingly, I am invited to permit Dr Saggar to be given information as set out in his response to question 2 and to prepare and file a full and comprehensive report.

67. This course is opposed by the local authority and by the children's guardian. The submissions of Mr Nuvoloni QC, on behalf of the local authority, may be summarised as follows:

i) there was no lacuna in the expert medical evidence before HHJ Watson;

ii) Dr King, the consultant paediatric radiologist instructed in the care proceedings, observed in her report that "There do not appear to be any features in Y's bones that would predispose him to fractures and no particular features of brittle bone disease";

iii) The mother has not established solid grounds to satisfy the Stage 1 test nor has she established there is some real reason to believe HHJ Watson's findings of fact require revisiting; and

iv) Dr Chapman opined in his August 2016 report that "EDS type 3 [the former name for the condition now referred to as hypermobile EDS] is not a cause of fractures in infancy".

68. In his supplementary skeleton argument Mr Nuvoloni QC made two main submissions:

i) the thrust of Dr Saggar's report is that infants who have inherited hypermobile EDS do not suffer fractures absent a history of inappropriate force or trauma; and

ii) HHJ Watson's findings were based in part on findings of a lack of credibility on the part of the parents, especially the mother, the mechanism to cause a metaphyseal fracture, in a twisting and pulling action, and the absence of any reported accident suffered by Y.

69. Mr Johal, who appeared on behalf of the children's guardian, supported and adopted the submissions on behalf of the local authority and made a number of helpful submissions, all to the effect that there is no evidence that Y suffered from or suffers from hypermobile EDS or any other condition which might predispose him to suffer fractures more easily than another 9-month-old child.

70. In his supplemental skeleton Mr Johal emphasised the lack of any evidence that at the relevant time, Y had any or any significant joint laxity.

Analysis

71. Following the approach taken by the Court of Appeal in *Re M*, above, I propose to consider the evidence of Dr Ayoub and Professor Holick notwithstanding I have refused permission for their respective reports to be admitted in evidence.

72. Dr Ayoub asserted that the line seen on the x rays of Y's skull, which was interpreted by the medical experts in the care proceedings as a skull fracture, was in fact a normal developmental variant. To this assertion Dr Chapman responded that the follow up x-rays showed the line had resolved which provided greater support for it representing a fracture rather than a normal fissure. Further in response to Dr Ayoub's that the femoral fracture 'could have been a residual defect form earlier life rickets', Dr Chapman referred to a recent international meeting of experts on vitamin D deficiency. Their conclusions/recommendations included the following:

i) children with radiographically confirmed rickets [not a feature of Y's x-rays] have increased risk of fracture; and

ii) children with a simple Vitamin D deficiency are <u>not</u> at increased risk of fracture.

73. I prefer and accept the evidence of Dr Chapman which reflected the consensus of expert medial opinion before HHJ Watson namely:

i) Y had suffered a skull fracture and a metaphyseal fracture of the lower end of the left femur;

ii) there is no evidence that Y had radiographically confirmed vitamin D deficiency, i.e. rickets;

iii) Dr King was of the view that there did 'not appear to be any features in Y's bones that would predispose him to fractures and no particular features of brittle bone disease';

iv) the mechanism by which metaphyseal fractures were sustained has a significant association with non- accidental injury; and

v) there is no evidence that Y suffered any form of connective tissue disorder, still less joint laxity.

74. Even if there was evidence that Y suffered from hypermobile EDS and vitamin D deficiency, which there is not, Dr Chapman and Dr Saggar are agreed that, in the absence of an event of inappropriate trauma or force, these conditions singularly or in combination would not result in fractures or predispose Y to suffer fractures.

75. In his report Professor Holick made two strident assertions:

i) it is with a high degree of medical certainty that if your son Case (sic) has the same genetic disorder as you and several of your family members have this could help explain the soft tissue swelling observed over the right temporoparietal area of the skull and the symmetrical bilateral fissures that were observed." First no basis is given for the 'high degree of certainty' that Y suffered from hypermobile EDS. Second there is no explanation for the assertion that this condition could explain Y's radiological findings. Third there is no basis given for the assertion '[the femoral fracture] could be easily explained by the underlying bone fragility genetic disorder Ehlers Danlos/hypermobility syndrome that your son likely has". Why is it likely? Professor Holick does not explain.

76. Mr Tughan QC asserted that Dr Saggar's evidence that he did not have any clinical experience of children with h EDS suffering fractures with a history of trauma, did not achieve the gold standard of medical research and therefore I should attach little or no weight to Dr Saggar's evidence (whom I note is the mother's expert of choice) on this issue. I note no such submission was made in respect of Professor Holick's contrary assertion of his clinical experience. I reject this submission. Dr Saggar is an eminent and hugely experienced consultant geneticist. His clinical experience is not and cannot be determinative it it is an important piece of the expert evidence to which I am entitled to give weight and to take account

77. I entirely accept that medical knowledge in respect of incidence and consequences of hypermobile EDS has advanced greatly since 2010. The same observation can be made in respect of the potential adverse consequences of Vitamin D deficiency especially when found in conjunction with even a mild form of EDS. The interplay between the two and any resulting predisposition to fracture are rightly accepted to be controversial – I refer, for example, to the extract from Dr Chapman's report at paragraph 50 above.

78. I accept the mother, at Stage 1, does not have to establish she would succeed nor even would have a reasonable prospect of success at any Stage 3 rehearing. She only has to establish there is a solid ground for challenge and/or there is some reason to believe the findings require revisiting. The test is a relatively low one but the basis for a rehearing must go beyond mere hope and speculation.

79. At this stage I remind myself of the principal findings of HHJ Watson which were as follows:

> "I find that Y was cared for during the relevant timeframe by four carers; his parents, M & F, and his childminders, P & Q.

> The absence of explanation or account of an accidental causation for the fractured skull, given the extreme distress that would have been apparent to the carer, is highly suggestive on the medical evidence of a non-accidental injury. The second metaphyseal fracture of the left leg, which because of its twisting and pulling mechanism is usually caused non-accidentally. The medical opinion is unanimous and point inextricably to only one conclusion, the combination of injuries and the absence of an accidental explanation I am satisfied excludes an accidental causation for either injury. I am satisfied that it is more likely than not that the injuries were inflicted on the same occasion and that this was a single violent incident or sequence of events. I say this because of the inability of the four adults responsible for the care of Y to recall any pattern of changed behaviour or changed mood apparent in the child during the preceding days and weeks, despite very careful investigation and questioning. This I find points towards a significant but isolated event. The fractures skull was caused by a significant blow or impact to the side of the head. I am satisfied that Y was very distressed and that his carer would be aware that something serious was wrong, but that his carer would not necessarily have known that Y's skull had been fractured. I am also satisfied that on the balance of probability that in the same sequence of events that his carer forcefully pulled and twisted Y's leg in such a way that the carer would be aware that this was causing Y to suffer pain and distress. After the immediate distress had subsided there would be no obvious symptoms apparent to the carer who may therefore not have been aware of the extent of Y's injuries. Other carers who were not present would be unaware that Y had suffered significant injury and might have put his apparent grumpiness down to a number of different childish complaints, such as colic, teething or frustration at not having his yoghurt dessert."

80. Mr Tughan QC and Ms Cook QC submitted I should approach HHJ Watson's findings with caution because she may have arrived at very different findings if she had had before her the new evidence I now have before me. I accept there is some merit in this submission. There are a number of findings which are not materially affected by the new medical evidence and which, by the by, accord with my own assessment of the factual matrix of this case.

81. These findings are:

i) the inability of the adults caring for Y to recall any pattern of changed behaviour or changed mood apparent in the child during the preceding days and weeks despite very careful investigation and questioning;

ii) Y at the time he sustained the fractures would have been very distressed and his carer would be aware something serious was wrong;

iii) his carer forcefully pulled and twisted Y's leg in such a way that the carer would be aware that this was causing Y to suffer pain and distress (I note that the mechanism for a metaphyseal fracture is a twisting and pulling action.)

82. Neither Dr Ayoub nor Professor Holick have, on the face of their respective reports, taken account of nor had regard to any of these findings. Neither of them suggest in their reports that a child who, by reason of a medical condition, is predisposed to suffer fractures, would do so without suffering any pain, distress, discomfort and/or changed presentation in the immediate aftermath of sustaining the fracture or fractures.

83. I remind myself that I must be alive to a case built on smoke and mirrors.

84. I discount the evidence of Dr Ayoub because:

i) of the criticisms made of him by Peter Jackson J, as he then was, in the St Helen's case;

ii) the lack of any adequate explanation for his interpretation of the x rays;

iii) bearing in mind that he is not an accredited paediatric radiologist;

iv) the observations made by Dr Chapman set out at paragraph 50 above; and

v) his failure to take account of those findings made by HHJ Watson and referred to in paragraphs 79 and 81 above.

85. I reject the evidence of Professor Holick. In his report he makes assertions for which he gives no underlying reasons to support the same. He uses terms such as 'medical certainty' which are not justified in his report and have the character of a dogmatic response. No consideration is given to alternative or of, what one might term, 'mainstream' hypotheses or explanations. He, like Dr Ayoub, has failed to have regard to or take account of the findings of HHJ Watson referred to above.

86. Dr Saggar, faithful to the first question he was asked, proceeded to give an opinion on the basis that Y had inherited hypermobile EDS from his mother. Even on this unproven, unestablished basis, his clinical experience as an eminent consultant geneticist, was that this condition with or without Vitamin D deficiency did not result in fractures, especially in infants, without a history of inappropriate force or trauma. In terms, Dr Chapman agreed.

87. I accept Ms Cook QC's submissions that Y was a lively and active toddler but knowing of the same I would expect his parents and occasional carers, P & Q, to have been hypervigilant. The notion that Y at 9 months of age suffered one event of trauma when he sustained a skull fracture and a metaphyseal fracture of his left femur completely unwitnessed and/or without any adverse reaction from him, even if he did suffer from hEDS and/or Vitamin D deficiency, I consider to be very unlikely not to say fanciful. The idea that he suffered these injuries in two separate events, albeit close in time, unwitnessed and without any adverse reaction, I consider to be even more unlikely and fanciful.

88. The submission that if Y had hEDS and/or vitamin D deficiency he might have suffered fractures with the application, howsoever applied, of a lesser degree than would be required for a child without either of these conditions, does not overcome or explain the findings of HHJ Watson referred to in paragraphs 79 and 81 above. Even accepting Y might have sustained fractures with the application of a lesser degree of force as the mechanism, his bones were still broken. The notion that he suffered broken bones in an unwitnessed event or events and without any adverse reaction, I consider to be unlikely and fanciful.

89. Save for the submission that medical knowledge has advanced since 2010 on the conditions being considered in this case and that same aspects of the medical opinions are controversial, the whole of the mother's case for a rehearing is, I find, built on smoke and mirrors. I am satisfied that the mother's case does not advance beyond mere hope and speculation.

90. When I add in

    i) A metaphyseal fracture results from a twisting and pulling action; and

    ii) that HHJ Watson's findings were based in part on a lack of credibility in the evidence of the mother and the father,

    I am satisfied that the mother has not established a solid ground for challenging the findings nor has she established that there is some real reason to be believe that the findings require revisiting.

Conclusions

91. For the reasons I have given I am satisfied that the mother has not established a solid ground for challenging the 2010 findings nor am I satisfied that a rehearing would not as observed by Hale K in *Re B* (above), result in any different finding from that made by HHJ Watson. On the contrary I am wholly satisfied that a rehearing would result in the self-same findings.

92. In the premises I am satisfied that:

    i) a further report from Dr Saggar is not necessary for the court to deal justly with this application; and

    ii) this application for a rehearing fails. It is without merit and it is dismissed.