Neutral Citation Number: [2026] EWCC 26

Claim No: F83YX097

IN THE COUNTY COURT AT MIDDLESBROUGH

Teesside Combined Court Centre
Centre Square
Middlesbrough
TS1 2AE

Date: 12 May 2026

Before :

HIS HONOUR JUDGE ROBINSON BEM

- -

Between :

GILLIAN DAKIN
(A protected party who proceeds by her son and litigation friend, Ben Dakin)
Claimant

and

SOUTH TEES HOSPITALS NHS FOUNDATION TRUST
Defendant

- -

Mr Lambert, Counsel, instructed by Switalskis Solicitors on behalf of the claimant
Ms Corkill, Counsel, instructed by DAC Beachcroft Solicitors on behalf of the defendant

Hearing dates: 28, 29 and 30 April 2026

- -

APPROVED JUDGMENT

This judgment was handed down at a remote hearing on 12 May 2026

A. PREAMBLE ON PUBLICATION

1. I have given a written judgment in these proceedings having regard to the complexity of the evidence. Having done so, I invited submissions as to publication. The claimant sought publication on the basis that there is said to be a relative paucity of reported liability trials in clinical negligence, and because the discussion of the authorities below may be of wider interest. The defendant submitted that the issues were narrow and fact-sensitive, such that publication was not warranted. Having weighed these competing considerations, and considering transparency and open justice, I have decided that this judgment should be published. The claimant and her litigation friend have expressly confirmed they do not seek anonymisation.

B. INTRODUCTION

2. These proceedings concern a stroke which the claimant suffered on 21 July 2016 ("the stroke") which was caused by atrial fibrillation ("AF"). Prior to the stroke, the claimant attended before Dr Quinn, a general physician working at the Friarage Hospital in Northallerton, on 15 January 2016. It has been admitted by the defendant that Dr Quinn failed to arrange a 24-hour electrocardiogram ("ECG") monitor in response to the claimant's symptoms, and it is further accepted that represented a breach of the duty of care which the defendant owed to the claimant.

3. The claimant asserts that such monitoring would have led to diagnosis of AF whereas the defendant asserts that it would not. The defendant admits that if the claimant had been diagnosed with AF she would have been treated with anticoagulants such that the stroke would likely have been avoided.

4. I must therefore consider whether the said breach of duty was causative of the stroke, and in doing so the parties have helpfully agreed the key issues for my determination:

    a. What was causing any symptoms experienced by the claimant?
    b. How frequently were such symptoms occurring?
    c. After the 24-hour ECG was done, would a 7-day ECG likely have been performed?
    d. Whether either the 24-hour or 7-day ECG would have detected intermittent atrial fibrillation?

5. It is useful to provide an understanding of AF at the outset of this judgment. In this regard I am assisted by Professor Brecker (instructed on behalf of the claimant) and Dr Khan (instructed on behalf of the defendant), both of whom are consultant cardiologists. Professor Brecker explains as follows (and both experts refer to such an explanation within the joint statement between them):

> "Atrial fibrillation is the most common cardiac rhythm abnormality that is characterised by completely disorganised electrical activity within the atriums of the heart. It is characterised on an ECG by an irregularly irregular rhythm, i.e. there is no predictable pattern. Secondly there is no organised atrial activity on the ECG, i.e. there are no P waves. Because there is no organised electrical activity within the atrium there is no organised

mechanical activity within the atrium, and electrical impulses are conducted in an irregularly irregular fashion to the ventricles so the ventricular contractions are irregularly irregular.

Atrial fibrillation has two major adverse consequences. The first of these relates to a reduction in cardiac output which can cause breathlessness and fatigue, and the second is that because of sluggish flow within the atriums and in particular left atrial appendage, thrombus can form. Typically patients will have symptoms of palpitation, breathlessness and are at risk of thromboembolic events. The commonest causes for atrial fibrillation are hypertension, coronary heart disease, and valvular heart disease although there are numerous additional causes including congenital heart disease, cardiomyopathy, thyrotoxicosis, alcohol, etc".

6. Within their joint statement these cardiology consultants agree that there are 3 types of AF:
    a. Paroxysmal ("PAF"), which is intermittent lasting less than 7 days and spontaneously reverts;
    b. Persistent, which lasts for longer periods of more than 7 days and typically requires additional treatment such as antiarrhythmic medication, electrical cardioversion or ablation to return to sinus rhythm; and
    c. Permanent, where AF is present all the time.

7. In having set those matters out, I will proceed to consider the evidence before providing an analysis of the same. I do add a caveat, that given the bundle before me is in excess of 1700 pages, it is not proportionate to reference every piece of evidence, and that also includes not referencing every oral testimony or every submission; however, parties can be assured I have considered it all.

C. THE CLAIMANT'S RELEVANT MEDICAL BACKGROUND

8. The claimant was born in 1964, and therefore at the time of the stroke she was 52 years old. At trial today she is 62 years old. She was employed by the National Health Service as a theatre nurse.

9. Within her witness statement (11 November 2024) the claimant detailed that she started noting palpations in 2012 but that they become more noticeable towards the end of 2014, and then more frequent into 2015. She described symptoms of a shortness of breath and how it did not improve through increased exercise, and she detailed her attendances upon her general practitioner in 2015. She described feeling her heart racing as she tried to get to sleep.

10. The claimant's son, Ben Dakin, has also provided evidence (his statement is dated 20 November 2024) in which he recalled occasions from 2015 when the claimant would tell him about the palpitations she was having.

11. Dr Quinn, a consultant physician, provided a statement (dated 1 October 2024) in which he commented that the claimant was referred to him by her general practitioner and the paperwork had been stamped "not for cardiology" and so was passed to him in the general

medical team. He stated that the referral referenced that she had been feeling "generally unwell", "washed out", "leg swelling" and "episodes of pounding in her chest" (but the referral referenced that an ECG showed "normal cardiac rhythm"). Dr Quinn explained the claimant attended a consultation on 15 January 2026 in which he elicited a history which included "palpitations", "panic attacks" and "swollen ankles". On examination he said he listened to her heart which he considered normal, and that the consultation raised "no flags" and that he arranged some blood tests which were all negative.

12. Professor Brecker and Dr Khan agree that typical symptoms of AF are "palpitations, shortness of breath, dizziness or fatigue", and that at some point or points between May 2015 and July 2016 the claimant is likely to have had intermittent AF ("PAF").

13. I have considered the claimant's medical records, and note the following extracts:

    a. 6 June 2002 (general practitioner records): "initially palpitations on commencing [medication] but after a couple of days these settled and nil probs".

    b. 2 June 2005 (general practitioner records): "Essential hypertension (occ fast beat, only if worried about something, improves on calming down".

    c. 8 March 2011 (general practitioner records): "doing more walking".

    d. 16 February 2012 (general practitioner records): "walks daily".

    e. 20 March 2012 (general practitioner records): "feels tired, washed out, very stressed with work".

    f. 8 May 2012 (general practitioner records): "getting some palpitations".

    g. 6 May 2015 (general practitioner records): "not been feeling well for a few months on and off but over past couple of days this has worsened. Yesterday felt as though having palpitations all day. Has noticed becoming short of breath on exertion … chest sounds clear, pulse rate irregular".

    h. 8 May 2015 (general practitioner records): "over last few months has noticed episodes of feeling v anxious with palpitations (pounding in chest)".

    i. 29 May 2015 (general practitioner records): "some improvement in symptoms since last review – however still gets occasional 'thumping' in chest – no obvious trigger and can come on at rest and on non-work day …".

    j. 9 June 2015: Letter from Dr Watt (General Practitioner) to the hospital setting out a history from the claimant including a "two to three month history of feeling generally unwell", and feeling "washed out" over the preceding year. States symptoms have been "getting worse" and "noting episodes of pounding in her chest".

k. 3 July 2015 (general practitioner records): “Palpitation seem to have settled and she think may be due to stress – esp with work difficulties which seem to be settling”.

l. 23 October 2015 (general practitioner records): “Palpitations and breathlessness ongoing – thinks is anxiety, has spoken to previous Dr surgery about it, feels can control it. Awaiting a medical follow uo re this and tiredness”,

m. 15 January 2016 (clinic date, letter from Dr Quinn dated 18 January 2016): “… also complained of palpitations and panic attacks. These initially occurred following taking the tablets but now can occur at any time and last minutes or hours and associated with a feeling of nausea. They occur with variable frequency and she is becoming increasingly tolerant of them so probably has them more often than she states”.

n. 13 March 2016 (personnel records): “stress/anxiety”.

o. 29 March 2016 (general practitioner records): “Depressed mood”.

p. 30 March 2016 (personnel records): “dizzy and nausea”.

q. 4 April 2016 (general practitioner records): “Depressed mood … Doesnt feel up to work” [sic].

r. 8 April 2016 (general practitioner records): “… feels tired … Depressive disorder”.

s. 22 April 2016 (general practitioner records): “Mood appears ok but fatigued ++ and poor sleep pattern”.

t. 10 May 2016 (general practitioner records): “Cannot get out of house. Has panic attacks”.

u. 16 June 2016: Letter from Louise Wood at the Tees, Esk and Wear Valleys NHS Foundation Trust stating: “Mrs Dakin described a problem of frequent panic attacks which are having a significant impact on her life and making her think that she can not [sic] cope with everyday things as she usually does. She reported that they seem to her to come out of the blue. She notices that when she starts to feel anxious she becomes aware of physical sensations normally associated with the ‘fight or flight response’, and she finds palpitations and nausea most distressing. She described feeling dreadful when she is aware of these. She reported that when the sensations occur she tends to believe strongly that she is having a heart attack. She tries to stay calm by trying to breathe deeply, she monitors her arm and other areas of her body. Afterwards, she thinks to herself she is ‘blowing it all up in her head’, but when the sensations occur again they are equally as distressing. She described that this has been a problem since March 2016. She described

that within this period she has experienced a number of significant losses due to bereavement".

v. 14 July 2016 (personnel records): "I saw Mrs Dakin for a review. She is feeling very much better and is receiving all the appropriate advice".

14. The claimant accepted in her oral evidence that since 2002 she had experienced anxiety and depression and described personal difficulties, including bereavements. She said that those symptoms were "a completely different thing" from what she experienced in 2015 and 2016, and that her June 2002 palpitations were entirely different. She also referred to workplace bullying in 2012 and to consulting her general practitioner.

15. The claimant described episodes at work when she appeared unwell and would go outside for fresh air. She considered these episodes began at least a couple of years before the stroke, but she could not provide dates. She said that on 5 May 2015 she had palpitations at work, was sent home, and attended her general practitioners' surgery the following day.

16. As to the "pounding" recorded in May 2015, the claimant said her "heart was going mad", meaning it was beating "hard" and "fast". She said she would try to talk herself out of it and the symptoms would subside. By way of example, she described an episode while walking to a shop, during which she sat on a low wall, was gasping for air (which she demonstrated when giving evidence) and the palpitations settled after she returned home and rested for about 10 minutes. She did not recall any particular stresses in May or June 2015.

17. A diary entry dated 19 October 2015 recorded a "panicky feeling". The claimant said her "heart was going mad" and that she thought she "was having a heart attack", but she could not recall when this was other that she was off work sick at the time.

18. The claimant said she regarded panic attacks and palpitations as the same thing, and that the label did not matter; from her perspective her "heart was going mad" and she did not know what was wrong. She said that when she saw Dr Quinn in January 2016, she was experiencing palpitations "quite a lot", but she could not recall the exact frequency.

19. The claimant said that in March 2016 she "must" have told her general practitioner that her "heart was going mad", although this was not recorded. She said that in March and April 2016 she did not regard herself as anxious or depressed, notwithstanding her general practitioners' repeated references to anxiety and depression. She said the doctors kept telling her she was anxious or depressed.

20. On 14 July 2026, at an appointment with Dr McKeown (an occupational health physician), the claimant said she understood she would need to return to work in order to earn money.

21. The claimant said that palpitations could follow worry, but she later clarified they would "just come on" and that her "heart would go funny". She explained the episodes occurred without any physical or cognitive precursor. The claimant said that, since the stroke, the palpitations appear to have resolved.

22. Mr Dakin provided oral evidence explaining that when speaking with the claimant in 2015 she said that her heart "was going a bit funny". Around December 2015 he said that the

claimant said such symptoms were getting much more frequent and aggressive, and the claimant used the word "racing" in April or May 2016. He said by May and June 2016, the palpitations had become almost daily, and he said the episodes would last 5 to 15 minutes and she would sit down. He referenced a trip which the claimant undertook to Edinburgh in June 2016 in which he has been able to date by reference to some internet searches of attending a cooking event concerning James Martin, and he describes how the claimant had told him about her breathlessness and struggles on that outing.

23. Mr Dakin said that the claimant told her that she suddenly woke up at 3am in the morning with her heart racing, and she then became anxious about it because the house was locked up, it was dark and she was worried she would not be able to get help.

24. He explained he previously sought to visit the claimant every quarter, namely at Christmas and extending his stay for the claimant's birthday on 6 January, and that he would visit at Easter, then again in the summer and finally around November time for his birthday. Mr Dakin said that in November 2015 he remembered the claimant saying she was feeling "a bit funny" and she dismissed it, and he found she was quite tired which was put down to her doing on-calls in her role as a theatre nurse. He further recalled her mentioning waking up a few times during the night and having "a funny do". He said that the claimant had always been someone who just got up and got on with things, and so he became worried because the claimant was raising concern about her symptoms. He said he told her to keep going to the doctors. He said the claimant told him that doctors kept telling her she was depressed or that it was anxiety, but that the claimant told him clearly she was not depressed.

D. EXPERT EVIDENCE

25. Professor Barnes (consultant respiratory and general physician instructed on behalf of the defendant, who reported dated February 2025) sets out the perspective of a general physician at a consultation with a patient presenting with palpitations:

> "The problem in investigating palpitations is to decide whether there is an abnormal cardiac rhythm, or they are just an abnormal awareness of a normal heartbeat often related to anxiety.
>
> Unless on examination an abnormal heart rhythm is detected there is no absolute symptom complex which can determine whether palpitations are pathological or not.
>
> Features which increase the probability that palpitations are pathological are if they have a sudden onset, if the patient can tap out the rhythm which is irregular, if they are associated with other physical symptoms such as shortness of breath, chest pain or light-headedness although this can also occur with palpitations related to stress and hyperventilation".

26. Dr da Costa (consultant physician instructed on behalf of the claimant, who reported on 9 April 2025) opines that as a general physician the first investigation would have been a 24-hour Holter monitor, and if that did not identify a cardiac arrythmia then a more prolonged form of monitoring, such as for 7-days, would have been appropriate because the nature of

PAF is such that in any one 24-hour period there may be no irregular beats, such that he further opines that a 24-hour Holter monitor is unlikely to have shown PAF. Dr Khan has also reviewed medical literature (in his report dated February 2025) and opines:

> "… it can be seen that in all of the above studies (and there are many more showing similar findings) the ability of a 24hour Holter to detect AF is very low and typically ≤5%".

27. Professor Barnes reports in similar terms to Dr da Costa:

> "The first diagnostic test to perform is a 12 lead ECG; if palpitations are intermittent this is frequently normal. The next step is a 24 hour tape where the heart rate is monitored over a 24 hour period. If there is still suspicion of a pathological cause of palpitations, then longer recordings or a device which the patient switches on if they get palpitations, may be necessary".

28. Professor Brecker opines (in his report dated 11 April 2025):

> "It is my opinion that when a patient presents with palpitation, then the frequency of the symptoms dictates the most appropriate investigation pathway. In this case I have to consider whether appropriate investigations would have revealed paroxysmal atrial fibrillation on balance of probability.
>
> It is my opinion that this is determined on the evidence contained in the witness statements of Ben Dakin and Gillian Dakin. If their evidence is accepted as being factually correct by the Court, then it is clear that the patient was experiencing frequent and indeed, increasingly frequent symptoms of palpitations. It is my opinion that these episodes, in 2016 prior to atrial fibrillation being formally diagnosed, were on balance of probability, paroxysms of atrial fibrillation.
>
> I note that Dr da Costa has indicated that appropriate management would have been to refer the patient for a 24 hour Holter monitor, which would have been undertaken by 08.04.16. On the basis that the Court accepts that symptoms were occurring on a daily basis, then on balance of probability, paroxysmal atrial fibrillation would have been diagnosed.
>
> In other words, based upon palpitations occurring on a daily basis, then atrial fibrillation would on balance have been diagnosed on a 24 hour tape. This is reflected in the NICE Guidance on investigating paroxysmal atrial fibrillation …".

29. Professor Brecker details the 2014 NICE Guidance:

> "1.1.3 In people with suspected paroxysmal atrial fibrillation undetected by standard ECG recording: use a 24-hour ambulatory ECG monitor in those with suspected asymptomatic episodes or symptomatic episodes less than 24 hours apart Atrial fibrillation: use an event recorder ECG in those with symptomatic episodes more than 24 hours apart".

30. He further opines:

> "Based upon Dr da Costa's timing, this would have been carried out by 01.07.16. If the Court accepts that the patient was having regular palpitation at least on a weekly basis, then is my opinion that this seven day monitor would on balance have demonstrated paroxysmal atrial fibrillation".

31. Dr Khan provides experience from his clinical practice, and he details that many patients with intrusive palpitations have normal 7 or 14 day heart monitors. He states:

> "… in clinical practice many patients with a confirmed previous diagnosis of PAF who continue to experience palpitations when monitored over a week do not have evidence of AF over that period of assessment. This is because either frequency of AF is less than that covered by the period of recording or often there are other causes of the palpitations as above (sinus tachycardia, ectopic beats potentially combined with hypervigilance)".

32. Dr Khan opines further:

> "The likelihood of capturing an episode of AF in patient with PAF is unsurprisingly strongly associated with duration of recording and also the frequency of episodes of AF which can vary from once or twice a year to several times a week ...
>
> I accept that there is higher chance of detecting AF with a 7 day monitor …
>
> The rates of detection for AF are still generally <10% with a 7 day monitor in studies incorporating various populations.
>
> It is also important to understand that 7 day monitors are of two sorts. The first and most commonly used in the NHS in 2016/2017 are event recorders – these are activated by patients when they have symptoms and do not continuously record and the whole time period is not analysed. The second less commonly used monitors are true 7 day monitors (basically like 7 x 24 hour monitors) where the whole time period is recorded and analysed – this requires more specialist equipment and is more time consuming. The relative capacity to detect AF (even if brief and/or asymptomatic) is higher in the second type of monitor, though these were rarely used in 2016/2017".

33. Professor Brecker and Dr Khan both provided oral evidence to the court.

34. Professor Brecker said that the claimant was a patient who, as a matter of agreed fact, had AF and further that it was agreed she was having episodes of intermittent AF or PAF prior to the stroke. He said that by far the most likely explanation for such palpitations, given such context and the descriptions provided by the claimant was episodes of AF. He described the claimant's symptoms as being "classical" of AF and that it would be incorrect to try and attribute her symptoms to something else when there is a definitive known underlying cause.

35. He explained the other possible causes and discounted them. In respect of ectopic beats, he said that these are just extra beats which the heart puts in and that the majority of people have them and they just get interspersed into the normal rhythm and that they cause a short-lived episode of the heart beating differently. Professor Brecker said that frequent ectopic beats would not typically describe the symptoms which the claimant had, and that he has never come across anyone who had been signed off as being unfit for work due to ectopic beats.

36. When considering sinus tachycardia, Professor Brecker explained that this describes the heart beating at a rapid rate, and the commonest cause is by doing exercise, and that when the stimulus is removed the heart reverts to normal. He described other stressors including fever, pain, anxiety, menopause and blood pressure medications. He said on its own sinus tachycardia does not explain the claimant's symptoms.

37. In respect of anxiety as a cause, Professor Brecker said that there were episodes reported by the claimant where there was no anxiety stimulus. Professor Brecker said that breathlessness is an important symptom in cardiology, and it should not be attributed to anxiety until other possible causes are considered first. He accepted that if anxiety arose prior to a palpitation, that could be the cause of the palpitation.

38. He said that the frequence of AF dictates whether it will be detected by monitoring, and he said patients will often have asymptomatic episodes. In respect of PAF, he gave examples and said episodes could occur twice a year or once a month, but he said it would be "unusual" to have symptoms everyday but that you could begin to have short-lived episodes on a daily basis. He accepted that detection on a 24-hour monitor for PAF would be "generally low".

39. Professor Brecker explained that coming in and out of AF can be more symptomatic for a patient as compared to someone who has continuous AF and becomes accustomed to it. He said that the transition period to permanence may alter perception of symptoms.

40. The symptoms of palpitations, shortness of breath, possibly dizziness and fatigue, are all symptoms which Professor Brecker said can occur during the episode of PAF, but that if PAF occurs a couple of times a week it can exhaust a patient outside the specific episodes and therefore the impact may persist beyond acute episodes. Professor Brecker explained further that PAF will often be perceived as "start/stop", but that it is more nuanced than that in that factors such as lack of sleep can impact, and patients can sit down or slow down during an episode to ease symptoms such as breathlessness or anxiety. He said that with any arrythmia, and one's own reaction to it, some patients can have a lot of adrenaline released and therefore calming down can have a positive impact on the symptoms.

41. When considering specific entries in the claimant's medical records, Professor Brecker considered that the entry on 6 May 2015 was something different from what had been reported previously. He described the entry as having several "red flags", and there had been a deterioration in the claimant's symptoms.

42. Professor Brecker accepted that there was a low yield for detecting AF through a 24-hour monitor.

43. I next heard evidence from Dr Khan. He said the reference in the joint statement to the agreement that the claimant had episodes of PAF between May 2015 and July 2016 was an attempt by him and Professor Brecker to narrow the issues, but his opinion was that the symptoms on 6 May 2015 were not, on balance, an episode of PAF, particularly noting the pulse rate.

44. Dr Khan said that the medical records do not positively demonstrate the onset of AF, and that the claimant most likely went into continuous AF a few days before the stroke. He explained from his experience that most patients would become symptomatic and seek medical help if continuous AF was present for more than a few days.

45. When considering anticoagulants, he said warfarin takes longer to prevent clots, typically 3-4 weeks before a stroke. However, he agreed with Professor Brecker that a DOAC provides a therapeutic effect within 2-4 hours. Dr Khan explained that a DOAC would not have dissolved an older formed clot, and on balance he considers it would take 3 weeks to do so.

46. Dr Khan discussed that the claimant's case is dependent upon detectability. He explained that a 7-day monitor did not mean "7 x 24 hours monitoring" in 2016, and that the memory capacity of a 7-day recorder was about 20 minutes. He explained it requires a patient to know that the patient is symptomatic and to record symptoms.

47. He accepted during oral evidence that the simplest explanation is often the right explanation, and he further accepted that the claimant probably had at least one or more episodes of PAF during the 6-month period prior to the stroke.

48. Dr Khan discussed the relevant symptoms of AF, and considered an irregularly irregular heartbeat, breathlessness, fatigue and low tolerance to exercise. However, Dr Khan explained that these symptoms are not exclusive to AF and occur with other conditions. He also opined that the episodes described of lasting between 5 to 15 minutes is less of a feature of AF. Dr Khan accepted that the claimant's symptoms worsened over time.

49. When examining the symptoms further, Dr Khan said dizziness is uncommon and notes the episode which the claimant reported in that respect. He also said that obesity increasing would decrease exercise tolerance, and he referenced the increase in the claimant's body mass index ("BMI") over time. Dr Khan also explained that other issues can co-exist with PAF, and therefore whilst the claimant probably had some episodes of PAF between May 2015 and July 2016, she could have other matters co-existing at this time, including for example anxiety.

50. Dr Khan said that patients with ectopic beats will frequently describe breathlessness, but he accepted it is seen more in patients with AF. He raised the possibility of inappropriate sinus tachycardia, where the heart beats fast but when resting. He said this was more common in younger patients.

51. He discussed the claimant's symptoms of anxiety, and he explained that he routinely sees symptoms of anxiety or consequent-anxiety in patients in his clinics, and he accepted that given he is not a psychiatrist he could not diagnose anxiety and could not take his opinion beyond that anxiety "could be" a cause of the symptoms by relying upon the medical records; he further accepted that anxiety should not lead to an irregularly irregular pulse.

52. Dr Khan said it was unusual that the claimant no longer seems to have the symptoms which she was having because her AF is not controlled well, noting that since the stroke she has not described the "funny turns" which she had experienced previously.

53. Dr Khan said that if the 24-hour monitor failed, as he considers likely, if the claimant was not having symptoms then the claimant would have either been discharged or investigations may have been paused to see whether there were any subsequent episodes of symptoms. If investigations were paused, that would then delay the timeframe for any subsequent investigations should the claimant then report further symptoms.

E. CLOSING SUBMISSIONS

54. On behalf of the defendant, it was submitted that this is a case which is factually and medically complex, and that it is for the claimant to prove that the 24-hour test would have led to diagnosis of PAF or led to 7-day patient-led monitoring which then led to such a diagnosis. If that is found, it was submitted that the defendant accepts that anticoagulant treatment would likely have commenced in time to prevent the stroke. There was a caveat to that, in that if it is found that investigations would likely be paused in the early part of 2016, then such treatment would not have occurred within the tight timescale preceding the stroke.

55. It was submitted further that the claimant's case is oversimplified and fails to adequately consider that both experts agree there were some other causes of her palpitations going on at times. I was referred to the claimant's history of palpitations from other causes in her past medical history.

56. I was taken through the claimant's medical history prior to 2012, and it was noted that the claimant had symptoms of palpitations, tiredness and other symptoms which were not PAF. The symptoms of constant breathlessness from mid-2015 set out in the claimant's witness evidence were submitted to be inconsistent with intermittent AF. The claimant's presentation post-stroke reveal the number of ectopic beats per hour, and further that the claimant's description of "thumping" fits more with having ectopic beats rather than PAF.

57. When considering the claimant's evidence, it was submitted that she could not recall detail, which was accepted as being unsurprising given the passage of time and her own health. In respect of Mr Dakin's evidence, it was submitted he provided greater detail in his oral evidence than his written evidence.

58. The duration of symptoms was noted to be remarkably different in oral evidence, being between 5-15 minutes, as opposed to hours as stated in the written evidence. It was submitted further that the claimant's symptoms commenced with worry before physical symptoms, and that it therefore presents as anxiety related. It was submitted that the claimant's trip to Edinburgh at the end of June 2016 did not reveal any significant difficulties with PAF, with 10 minutes of sitting down because of symptoms in a 2-day trip. Furthermore, the records within her personnel records reveal an improving picture, thus there was no continuous AF.

59. It was submitted that the medical records are far more likely to be correct, and there is a stark absence of reference to cardiac complaints in 2016 prior to the stroke. The episodes which the claimant described involved her going to sit down and the symptoms would go away, but arrythmia cannot be controlled in such a manner.

60. It was submitted that if the claimant had normal heart rhythm on the 24-hour monitoring and she described symptoms during the monitoring period, she would have been discharged back to her general practitioner. However, if she had 24-hour monitoring and did not describe symptoms during the period but described ongoing symptoms, then the investigation would have likely moved to a 7-day patient-activated monitor. I was then taken to the literature, the Jabaudon et al and Reiffel et al studies.

61. In respect of the expert evidence, it was submitted that Dr Khan is an expert who should be preferred noting that he has more experience in dealing with arrythmia in practice and further he was more receptive to considering the medical literature. It was submitted Professor Brecker's reporting lacked analysis, and that Professor Brecker does not address the change of, and resolution of, the claimant's symptoms post-stroke. Professor Brecker was said to look at the end diagnosis of AF and to look backwards, fitting the cause to it but without proper analysis.

62. It was submitted that *Gestmin SGPS SA v Credit Suisse (UK) Ltd* [2013] EWHC 3560 applies in respect of the fallibility of human memory, and there are clear and consistent medical records which are available in this case.

63. As to the cases of *Keefe v The Isle of Man Steam Packet Company Ltd* [2010] EWCA Civ 683 and *Younas v Okeahialam* [2019] EWHC 2502 (QB) which are relied upon by the claimant, it was submitted that the burden of proof is not reversed, and that relevant evidence can still not be ignored and it applies more when there are ranges. *Keefe* was also distinguished on the basis that in this case there is still other evidence available, from the medical records, whereas in *Keefe* it regarded historical noise exposure monitoring.

64. On behalf of the claimant, it was submitted that the epistemic question of whether or not the claimant was in AF or not only arises because the defendant failed to initiate cardiac monitoring, and the defendant cannot benefit from its own breach of duty. I was referred to *Keefe* and it was submitted that I should approach the claimant's evidence benevolently. I was also referred to *Jah v Burne* [2018] EWHC 3461 (QB) and *Younas*, and that I should err in favour of the claimant.

65. In applying such principles, it was submitted that there are entries in the medical records which are ambiguous, which could be AF or non-tortious, and where there is an evidential tie, the court should decide that in favour of the claimant. It was said to equally apply to matters of oral evidence, and particularly of the claimant's evidence owing to her vulnerabilities which emanate from the stroke. Furthermore, where there are two equally plausible interpretations as to medical evidence, it was said that it should be determined in the claimant's favour. A further practical interpretation of the legal principle referred to is in relation to temporal windows, for example whether a direct oral anticoagulant ("DOAC") would take effect within 2 weeks or 3 weeks, that the lower should be applied to err in favour of the claimant. Where there are periods not covered by the medical records, it was submitted that the benevolence of the claimant's evidence should also be applied.

66. When considering *Gestmin*, I was referred to *Barrow v Merrett* [2021] EWHC 792 (QB). The claimant also relied on *TUI UK Ltd v Griffiths* [2021] EWCA Civ 1442, at paragraph 70, regarding challenging evidence by way of cross-examination.

67. It was submitted that it is agreed that the stroke was caused by AF, and that between May 2025 and July 2016 the claimant likely had episodes of PAF. It was submitted that the claimant's symptoms are explained by PAF. In respect of Dr Khan's evidence, it was submitted that it was perverse for him to have looked for alternative causes in such circumstances. It was submitted that the overwhelming likelihood is that the claimant's presentation was of signs and symptoms of AF.

68. When considering Dr Khan's evidence further, it was submitted that in addition to the possible causes previously advanced, being sinus tachycardia, ectopic beats and anxiety, he advanced 3 further possible causes in his oral evidence, being postural tachycardia syndrome ("PoTS"), inappropriate sinus tachycardia and obesity, and it was submitted that Dr Khan had stepped into the role of arguing the case.

69. I was taken through the possible further causes, and each was submitted to be less likely than PAF. It was further submitted to be utterly implausible that the claimant would be signed off work with ectopic beats. It was submitted that it would be an error of law to positively find that the claimant's symptoms were caused by anxiety and stress without any expert psychiatric evidence in that regard. Pivoting from pleading that the claimant was put to proof in the defence to now seeking to advance a positive case in relation to anxiety was submitted to lead to unfairness to the claimant who could have obtained such expert psychiatric evidence.

70. The claimant was submitted to be stoical, and that excessive weight is being put on her ability to try and pull-herself together and get on with things, particularly in the context of her being told that her symptoms were anxiety related.

71. On the issue of detectability, I was referred to evidence of daily symptoms, which it was said had substantial support from the records. I was taken through the timeline for monitoring as contained in Dr da Costa's evidence and cross-referenced with the claimant's evidence in respect of symptoms, and it was submitted there were asymptomatic periods of PAF too.

F. ANALYSIS

Impression of the witnesses

72. I begin my analysis by providing my impression of the witnesses who have provided evidence before me. The claimant provided her evidence first. She was a witness who tried her best to assist the court, taking the time to look over the documents which she was referred to. However, many matters she had been referred to were over 10 years ago, and she recognised her stroke impacted her memory. She therefore candidly recognised when she could not remember specifics of matters, and that candid recognition is to her credit. Her evidence did, however, include some specific recollections that had a gloss of genuine authenticity. I found that she was an honest and credible witness.

73. I next heard evidence from Mr Dakin. He was an entirely straightforward witness. He answered questions clearly, giving relevant context where appropriate but not over-embellishing answers. He readily explained when he could not recall a matter, or when what he was saying was his interpretation of matters as opposed to what he had been told directly by the claimant. He was equally honest and credible.

74. Professor Brecker provided his evidence next. He was an impressive expert witness. He offered evidence-based reasons and reflected upon his answers. He sought his best to assist the court.

75. The final evidence I heard was from Dr Khan, and I found him to be an equally impressive witness. He based his evidence on the documentation before the court and reflected upon the oral evidence heard. It was evident he too sought his best to assist the court. I do not accept the criticism submitted on behalf of the claimant that he had assumed a role of advocate, and instead I found him entirely measured and balanced.

Burden of proof and legal principles

76. It is the claimant who must prove her case on the balance of probabilities; there is no burden on the defendant to disprove the case. This matter currently in dispute is one of causation, namely whether the defendant's accepted breach of duty in failing to arrange 24-hour ECG monitoring following the appointment on 15 January 2016 caused the claimant's stroke.

77. There is very little case law which I have been referred to, principally because the issues to determine, as set out at the outset of this judgment, are factual in nature. I have, however, been referred to *Keefe* and note the judgment of Longmore LJ at paragraph 19:

> "If it is a defendant's duty to measure noise levels in places where his employees work and he does not do so, it hardly lies in his mouth to assert that the noise levels were not, in fact, excessive. In such circumstances the court should judge a claimant's evidence benevolently and the defendant's evidence critically … Similarly a defendant who has, in breach of duty, made it difficult or impossible for a claimant to adduce relevant evidence must run the risk of adverse factual findings. To my mind this is just such a case".

78. Whilst applying to noise exposure, the overriding principle of *Keefe* applies. The defendant accepts it did not undertake monitoring through an ECG as it should have done. Applying this, the defendant effectively benefits from its breach of duty concerning the absence of ECG monitoring as the claimant does not have such evidence to show she was, in her case, in PAF or AF. As such, it is right when assessing the evidence before me I should properly assess the claimant's evidence benevolently and the defendant's evidence critically. To assist the parties, where I do apply this to the evidence in my assessment below, I will make it clear I have done so.

79. In respect of *Jah*, which applied *Keefe*, at paragraph 64 Spencer J determined:

> "the court should apply err in favour of the Claimant where it is the Defendant's negligence which deprives the court of the best evidence and causes the need to delve into this hypothetical world".

80. In *Younas*, at paragraph 38, a useful reminder is included:

> "Applying proper 'claimant benevolence' without reversing the burden of proof requires care".

81. As noted above, the defendant refers me to *Gestmin* in which Leggatt J set out difficulties with the "unreliability of human memory" (para 15, but elaborating further in paras 16-21), and then states (at para 22):

> "… in the light of these considerations, the best approach for a judge to adopt in the trial of a commercial case is, in my view, to place little if any reliance at all on witnesses' recollections of what was said in meetings and conversations, and to base factual findings on inferences drawn from the documentary evidence and known or probable facts".

82. Whilst I readily accept the understandable difficulties of human memory, particularly in a case such as this where there has been such a lengthy period between the events in question and the witness statements being prepared, that is a feature which all judges need to consider when holistically assessing and weighing evidence. However, beyond that, I distinguish *Gestmin* because it was a commercial case whereas the present case is one involving alleged clinical negligence. Such cases of alleged clinical negligence often involve interpretation of symptoms, and the way those symptoms are described by a lay person to a clinician can vary. One person may describe a condition based upon their own experiences, describing what they may see or feel, whereas the same condition may be described differently by someone else. If one were to focus upon the words that were used and recorded at the time, often at a time of high stress owing to a health-related incident, and to then exclude or otherwise reduce the significance of the context of the situation which is given by way of lay witness testimony, that would lead to injustice. Commercial claims often arise from documentation, for example written contracts; conversely, clinical negligence claims emanate from human interactions. It is for this reason that I will approach all the evidence holistically.

83. *Barrow* supports such an assessment, notably at paragraph 34:

> *"Gestmin* was not setting down a fixed rule of interpretation applicable to all commercial cases, let alone all cases in which there is a dispute of fact. Each case remains to be determined in its particular context on its particular facts. One can well imagine how the observations serve as an essential guide to the approach to be adopted in a commercial case in which there is a substantial amount of documentation, an 'electronic footprint', detailing contemporaneously what the parties said and thought in meetings about the relevant transactions. This is plainly not such a case. Neither the small amount of documentation generated in the immediate aftermath of the accident, nor the 'objective' evidence such as damage to the car, debris, injury etc provide any form of forensic heuristic entitling the Court to overlook the importance of eyewitness evidence. The evidence of

> eyewitnesses to a single event such as a collision is almost always likely to be highly relevant to the assessment of what occurred, and certainly is here".

The cause of the claimant's symptoms

84. I return to the substantive issues I am to determine, and I firstly consider the claimant's symptoms. In doing so, I consider specifically the symptoms which she had, and their likely cause, at the point any monitoring should have taken place. As to when that monitoring should have taken place, I refer to the timeframes set out in the evidence of Dr da Costa which has been accepted by both parties (and which I clarified during closing submissions), in that a request by Dr Quinn at the consultation on 15 January 2015 would have led to the results from a 24-hour monitor by 8 April 2015.

85. Dr da Costa explains the likely investigations which would follow if a 24-hour monitor provided normal results:

> "If a patient continued to complain of intermittent palpitations and a 24 hour ECG recording was normal, then a more prolonged monitor would be requested, and I note that the Defence admits that this would be done by referral to Cardiology. If Mrs Dakin's 24-hour ECG monitor had been normal by 08.04.2016 and palpitations continued to be a significant symptom, then it is admitted that Mrs Dakin would have been referred for a 7-day ECG monitor (likely subject to another 12 week waiting time). The results would have been available on or before 01.07.2016".

86. I consider that in assessing causation in this case, it is useful to consider the claimant's symptoms proceeding her consultation with Dr Quinn on 15 January 2016, which will provide context, and thereafter to consider symptoms between that appointment and 8 April 2016 and then finally to consider symptoms from 8 April 2016 to 1 July 2016.

87. As a general starting point, I turn to the joint evidence of Professor Brecker and Dr Khan who agree:

> "… at some point(s) between May 2015 and July 2016, on the balance of probabilities, the Claimant is likely to have had intermittent or paroxysmal AF (PAF) before her permanent AF … [and] that if AF (of any type) had been detected in the Claimant on an ECG or a period of cardiac monitoring and she had been anticoagulated with warfarin more than 4 weeks prior to her stroke, then on the balance of probabilities, her stroke would have been prevented. If, as is likely, she had been anticoagulated with a DOAC, then the beneficial therapeutic effect would have been achieved earlier".

88. It was made clear during oral evidence that this is the general period, and it is not reflective of an agreement that PAF episodes *commenced* in May 2015. Dr Khan made it clear his evidence was that there was a "possibility" of an episode of PAF in May 2015, whereas Professor Brecker formed the view of that the "red flags" which he identified from the general practitioner records on 6 May 2015 made it likely that the reported symptoms were a PAF episode. I will now consider the distinct periods.

(a) Symptoms leading to referral to Dr Quinn on 15 January 2016

89. I have considered the claimant's health in 2002, and later into 2012. There are some entries set out above but, having considered the evidence of both Professor Brecker and Dr Khan, I find these were not instances of PAF.

90. Understanding what it was that brought the claimant to seek medical advice in 2015, leading to the consultation with Dr Quinn on 15 January 2015, is important. This is the start of the sequence of events which leads to the stroke on 21 June 2015. However, just because I am looking at the sequence of events as part of the overarching context, it does not mean it is causally connected.

91. The claimant's attendance at her general practitioners' surgery throughout 2014 and into the early part of 2015 is largely unremarkable, with some annual reviews and general advice regarding knee and ankle pain and hypertension. The general practitioner records then have a marked shift in May 2015 onwards. The entry on 6 May 2015 reveals an "irregularly irregular pulse", "palpitations all day" the preceding day and shortness of breath. Professor Brecker and Dr Khan agree that these are hallmarks of AF, and Professor Brecker considers that on the balance of probabilities this was likely to be an episode of PAF. Dr Khan considers that the pulse rate of "60 bpm" moves his view away from such a position, and he notes that "[s]inus rhythm with frequent ectopic beats would give rise to the same pulse".

92. I find Dr Khan's analysis places too high a focus upon the pulse rate without holistically balancing that alongside the other symptoms. Conversely, Professor Brecker considers the pulse rate but provides analysis of the same and does holistically consider the other symptoms, which leads to his view that this was an episode of AF. Such a balancing exercise causes me to prefer Professor Brecker's analysis in this regard.

93. Moving forward 2 days to 8 May 2015, the general practitioner records note that over the preceding couple of months the claimant had noticed "episodes of feeling v[ery] anxious with palpitations (pounding in chest)", and with "[n]o obvious stresses". The language recorded provides a degree of consistency with the claimant's evidence. She had anxiety *with* the palpitations. I can take judicial note that problems with one's health understandably can cause anxiety, and it is often that worry about health that leads a person to the door of his or her general practitioners' surgery to ask the ultimate questions of "what is wrong with me?". The reading of the said record becomes even clearer with the juxtaposition with the absence of stresses.

94. The next entry on 29 May 2015 describes a degree of improvement, but with occasional "thumping" in the chest. The word is inserted in the records in quotation marks, and I find that is therefore likely the word used by the claimant. The history also records that there were no obvious triggers, with again no obvious stresses, and with it coming on at rest and on non-workdays.

95. Such entries in May 2015 are, for the reasons I have explained in respect of 6 May 2015, classical of the symptoms of AF. I find that the issue of anxiety, as I have set out above, emanates *from* the symptoms as opposed to being causative of the symptoms. I have considered other possible causes as suggested by Dr Khan, but those possible causes as are set out above do not meet the typical presentation of symptoms as well as AF, and I find on

balance that AF (specifically PAF at this time) was the cause. So not to disrupt the chronological flow within this judgment, I will provide my further analysis on those other possible causes below.

96. By July 2015 the claimant appeared to be in a better position, the general practitioner records stating that "palpitations seem to have settled and she thinks it may be due to stress". Anxiety had evidently been discussed at the consultations in May 2015, which is entirely reasonable as general practitioners rightly seek detailed histories to explore all possible causes of symptoms. The claimant has then seen an apparent improvement, but that again is typical of PAF where there are periods where there may be no episodes and therefore no symptoms. The claimant has, by reference to what is recorded and also her own evidence and that of her son, been told it may be anxiety related and has accepted the same and then has proceeded on that basis. However, none of that detracts from what I have set out immediately above, namely that it was likely that the claimant was having episodes of PAF at this time.

97. On 29 October 2015 the claimant attended on her now new general practitioner surgery, and it records:

> "Palpitations and breathlessness ongoing – thinks is anxiety, has spoken to previous Drs surgery about it, feels she can control it. Awaiting medical follow up re this and tiredness".

98. The same discussion I have set out above in respect of anxiety applies, and it is a continuation of it. I have considered whether the claimant's evidence that she could manage and control her symptoms means that such episodes could not reasonably have been PAF, because PAF/AF cannot be controlled in that way. However, as Professor Brecker explained, sitting down and keeping calm could have a beneficial effect, particularly given the claimant's account (which I accept) that she was understandably distressed and anxious when the episodes occurred. Taken together with my earlier findings about episodes of PAF, and the claimant's and Mr Dakin's evidence about the impact of those episodes, I found that evidence had real authenticity and clarity. I therefore find that, while the claimant could not control the underlying arrhythmia, the steps she took did alleviate her distress and so were perceived by her as reasonably helping. This is not application of benevolence to the claimant's evidence, but a finding based considering all the evidence holistically.

99. The position in this regard was akin to a self-reinforcing cycle: because the claimant had come to believe that her symptoms were anxiety-related, she responded by trying to calm herself and manage them. That response was then capable of being interpreted by clinicians as supporting an anxiety explanation, with treatment directed accordingly. In turn, that reinforced the claimant's own understanding of the symptoms as anxiety, and the cycle repeated (and this cycle is often referred to as the Betari Box Model).

100. Moving forward in time (as I do not consider it is necessary to address every entry given that I have found there were episodes of PAF in May 2015), and accepting the claimant's evidence and reporting within the general practitioner records that such episodes commenced in the months preceding May 2015, I then come to the consultation with Dr Quinn on 15 January 2016. Professor Barnes offers an opinion this consultation:

> "With regard to Dr Quinn's management, he elicited a history which was suggestive that the palpitations were pathological rather than just related to anxiety in that he noted nausea. He was also concerned enough about the palpitations to order tests to exclude a phaeochromocytoma …"

101. I accept such an opinion of Professor Barnes as it reflects the actions of Dr Quinn; in essence, Dr Quinn took practical steps to explore a pathological cause of the symptoms. It is accepted that such practical steps omitted the necessary monitoring, such that breach of duty has been admitted. However, the underlying foundation of his clinical assessment and his thought-process was one of investigating pathology in the first instance, albeit it did not yield an answer.

102. Dr Quinn's witness evidence does proceed to explain that he did not come to "a definitive diagnosis" and that his "focus was on anxiety". This, I find, is an important step. This is because the "focus" on anxiety was undertaken by way of almost a diagnosis of exclusion, but such a diagnosis of exclusion failed to consider AF (see the above discussion about anxiety). Therefore, the impact of the breach of duty in failing to undertake the necessary monitoring, and therefore failing to consider AF, resulted in the claimant's symptoms being looked at through a prism of anxiety. It narrowed the perspective. Therefore, when considering causation, the breach of duty cannot be detached because the actions in respect of the breach dictated how the subsequent symptoms were viewed, which is relevant to assessing causation.

103. Dr Quinn does initially write and does not narrow such perspective, stating:

> "… complained of palpitations and panic attacks. These initially occurred following taking the tablets but now can occur at any time and last minutes or hours associated with a feeling of nausea. They occur with variable frequency and she is becoming increasing tolerant of them so probably has them more than she states".

104. However, in having consulted a general physician, and in Dr Quinn's words as that general physician of "draw[ing] a blank" (his letter dated 24 February 2016), it narrowed the scope of clinical consideration of the cause of her symptoms when the matter then returned to the doctors in the claimant's general practitioners' surgery as such doctors had referred appropriately and the claimant was discharged back to their care.

(b) <u>Symptoms between 15 January 2016 and 8 April 2016</u>

105. Following the consultation with Dr Quinn, and there being no definitive diagnosis, I find it is not unusual that there are no immediate further entries in the general practitioner records. This is because the claimant had attended at hospital and been discharged. In the context of the claimant, being described by her son in his evidence as being like the Monty Python's Black Knight in that she carries on irrespective of what occurs to her body, I accept that she was therefore unlikely to immediately return to report the same symptoms and did just carry on, and in this regard I err in favour of accepting the evidence as advanced on behalf of the claimant, notably by Mr Dakin, particularly noting its proximity in time to the breach of duty in January 2016.

106. I also accept the evidence of the claimant and Mr Dakin as credible and authentic, and it is consistent with the joint evidence of Professor Brecker and Dr Khan about the likely period of intermittent AF/PAF. As such, I find that the claimant continued to experience episodes of PAF after the consultation with Dr Quinn which were materially similar to those described earlier. This finding is also consistent with the progressive nature of AF.

107. I am not satisfied that the claimant has proved daily episodes of PAF in this period. Whilst I accept the claimant's evidence, she is unable to provide any level of specificity around such frequency. The claimant's evidence of needing to sit down on a bed when working at hospital, or needing to go outside for air (noting what I have already said about how she thought such a step was helping her) and her description of specific other incidents (such as when walking to the local shop), all paints a picture of progressive symptoms, and are all consistent with ongoing episodes of PAF for the reasons I have already explained. Whilst such a specific incident cannot be dated, the personnel records show her being unfit for work from 30 March 2016, and therefore such incidents at work occurred prior to this. I do not consider that the symptoms of sickness at the end of March 2016 were an incident of PAF noting that it involved vomiting.

(c) Symptoms from 8 April 2016 to 1 July 2016

108. Mr Dakin's evidence about the claimant's symptoms in this period is particularly illuminating. There was a clear recollection which came through in his oral evidence, and a real genuineness to it when he referred to himself being "a bit of arse" about matters when he continued to insist the claimant return to her general practitioner because of the ongoing symptoms she was telling him about. His worry for his mother at that time was genuine and without embellishment. Whilst he provided more detail in his oral evidence, it was entirely consistent with his written evidence, when he wrote:

> "Mum was off sick more often in 2016 before she then went on long term sick and she was put on anti-depressants. I think she thought that the cause of her symptoms was anxiety and depression, as there was no other explanation. She continued to seek medical advice but she kept being told the same rhetoric, that the cause of her symptoms was anxiety and depression".

109. For the reasons set out above I find these ongoing episodes were likely to be episodes of PAF noting that the symptoms were the hallmarks of AF as compared to other possible causes and noting that by July 2016 it is accepted the claimant had AF. The claimant's evidence, and that of Mr Dakin, is also consistent with the documentary evidence, particularly the letter of Ms Wood dated 16 June 2016 which I have referenced above and which details what are referred to as "sensations" and "frequent panic attacks" since March 2016. "Frequent" is a subjective term, and what is frequent to one person is different to another. The Cambridge Dictionary refers to "frequent" as "happening often".

110. When looking objectively at all this evidence, I find that it is likely that symptomatic episodes of PAF were occurring on multiple times each week. Not only is such a finding consistent with the assessment of the evidence which I have just outlined, but it also is consistent with the rounded picture of the claimant's symptoms in terms of the restrictions which she had, the breathlessness and her fatigue.

Alternative causes

111. I have referenced the alternative causes above and preferred the evidence of Professor Brecker, albeit that was specifically in relation to matters on 6 May 2015 but the same assessment applies to the other episodes which I have found. Before I move on to consider the issue of whether the claimant's PAF would have been detected in the relevant timeframe, I will provide further detailed explanation of the other possible causes which have been raised.

112. As to anxiety as an alternative cause, I accept that anxiety features repeatedly in the contemporaneous records. However, I am satisfied that, in this case, the prominence given to anxiety was materially influenced by the failure to undertake appropriate cardiac monitoring and, with it, the failure properly to test AF as an explanation. In that sense, anxiety came to be treated as an explanation largely by default once investigations had "draw[n] a blank".

113. There is, moreover, no psychiatric expert evidence to support a positive finding that anxiety was the primary driver of these episodes, as opposed to a reaction to them. I have taken account of Dr Khan's observations, but they are derived from the documentary records, particularly clinical notes, and for the reasons I have given these became narrowed once AF was not investigated when it should have been.

114. Ectopic beats were another possible cause discussed for the claimant's symptoms. Dr Khan explains:

> "At other times it is suggestive of ectopic beats (she had a reasonable burden of ectopic beats seen on Holter). Ectopic beats would also cause an irregular pulse and could explain the findings of the nurse on 06/05/15".

115. The wider context of the claimant's presentation is important, and I find that a consideration of ectopic beats provides no reasonable explanation for the consistent symptoms which I have found. It was stark evidence that both Professor Brecker and Dr Khan accepted that ectopic beats alone would be unlikely to lead to a patient being unable to work.

116. Sinus tachycardia is another suggested cause, which Professor Brecker and Dr Khan explain is "a faster but normal heart rhythm". Sinus tachycardia can produce some of the symptoms which overlap with symptoms of AF, but again when stepping back and looking holistically at all of the claimant's symptoms, and the period in which she was presenting them, it navigates away from a diagnosis of sinus tachycardia, and Professor Brecker's evidence considered the claimant's symptoms holistically in that regard and for such a reason I prefer his evidence to Dr Khan's evidence in such a respect.

117. I do not consider Dr Khan was advancing PoTS as a possible cause within his oral evidence and simply referenced it by way of illustration to one of his answers. As to inappropriate sinus tachycardia, this arose for the first time in the witness box from Dr Khan and there is no other evidence to support it, and given what I have already set out in respect of the episodes above, I find those episodes are positively proven as episodes of PAF.

118. For those reasons, and balancing the evidence as a whole, I am satisfied on the balance of probabilities that PAF was the underlying cause of the episodes in issue and not anxiety, sinus tachycardia, inappropriate sinus tachycardia or ectopic beats.

Investigations and detection or otherwise

119. I come to consider whether, having found those symptoms and their cause, PAF would have been detected on the monitoring.

120. In respect of the 24-hour monitor, in view of the finding which I have made above, I find that a 24-hour monitor is unlikely to have diagnosed PAF. This is because the episodes were not occurring daily at that time.

121. I have, however, found that the claimant was continuing to experience episodes. I have found progressive episodes, with those episodes impacting on aspects of her daily life (such as work and shopping). The claimant's son was also an encouraging influence on the claimant to get to the bottom of her health concerns. Owing to these factors, if, as I have found likely, the 24-hour monitoring yielded negative results, and accepting the evidence of Dr da Costa (and noting there is no challenge to the timescale set out in his evidence), I find that the claimant would have been referred for 7-day patient-activated monitoring. In this regard I accept Dr Khan's evidence, to which Professor Brecker concurred, that in 2016 the 7-day monitoring was not continuous recording and was patient-activated with approximately 20 minutes of recording time, thus asymptomatic episodes would be unlikely to be recorded. In making this finding, there would have been no pause in the investigations; the "draw[ing] a blank" which Dr Quinn had found would have continued, but there would need to have been a further search to fill-in that blank in light of ongoing episodes.

122. In considering whether such a 7-day recorder would have detected an episode of PAF/AF, I firstly turn to the medical literature which has been presented. A study by Jabaudon et al, *Usefulness of Ambulatory 7-Day ECG Monitoring for the Detection of Atrial Fibrillation and Flutter After Acute Stroke and Transient Ischemic Attack* [2004], is of limited assistance. This is because it has cohort of 149 but that cohort is a mixed cohort, that is to say it has participants who both have AF and do not have AF. When interpreting how effective monitoring is, it is not known how many of the participants actually ultimately had AF, whereas it is accepted the claimant had AF at the point of the stroke and was having PAF episodes (and which I have found) at the time monitoring would have occurred. This medical literature helps even less as the participants who are found to have AF through an initial standard ECG (4 patients), by a subsequent ECG within 5 days of admissions (6 patients) or through 24-hour monitoring (7 patients), were all excluded when the data considered the 7-day monitoring. This distorts the data for the purposes for which it is presented in this case. Dr Khan said that 25-30% of stroke patients have AF, and I was invited to then consider this in light of the data presented. However, I find that interferes with the reliability of the data. Furthermore, when 7 patients with a remote history of PAF are investigated, the reporting is as follows:

> "4 cases of AF were documented during the study period. One case of AF was detected on 12-lead ECG and 3 cases were detected with Holter. No case was identified using ELR".

123. This is a very small sample such that it brings with it a degree of unreliability. However, even on such a small sample, 4 out of 7 cases were detected by monitoring, thus being 57%. Whilst no cases were detected on the 7-day monitor, I find that in it having been detected on the 12-lead ECG and subsequent 24-hour monitor (the Holter), then it is likely that a 7-day monitor would similarly have detected them, noting the evidence of both Professor Brecker and Dr Khan that the longer the period of monitoring the more likely it is that detection would be effective in identifying intermittent episodes.

124. I next turn to a study presented by Reiffel et all, *Comparison of Autotriggered Memory Loop Recorders Versus Standard Loop Recorders Versus 24-Hour Holter Monitors for Arrhythmia Detection* [2005]. This research compared a 24-hour monitor, a standard 30-day memory loop recorder and an auto-triggered memory loop recorder. It was submitted that whilst it was again a mixed cohort and not a cohort of exclusive participants who had a diagnosis of AF, to see what percentage of those participants were then detected through the monitoring process I was invited to look at the figures in respect of the auto-triggered memory loop recorder, noting it detected AF in 146 participants, and to utilise that as the base for comparing the other monitors. In doing so, those detected on the 24-hour monitor were 27 participants (19%) and on the 30-day memory loop recorder was 75 participants (51%). There is no data for a 7-day patient activated monitor. I was invited to infer that it must be less than for the 30-day memory loop recorder. However, it is an inference which is lacking because I do not have any data comparing a 7-day patient activated monitor with a 30-day memory loop recorder. Whilst this study shows the low yield of the 24-hour monitor, and reinforces my findings in that regard, it does not assist in considering the 7-day monitoring process. What it does show is that in the longer monitoring, that being the 30-day memory loop, 51% of cases were detected.

125. I am left with the clear factual findings which I have made that the claimant was having episodes of PAF multiple times each week from 8 April 2016 to 1 July 2016. The claimant has been able to describe the episodes on repeated occasions, so she knows when they were occurring. Therefore, if she had a 7-day patient activated monitor, and noting the progressive episodes which she was having and her familiarity with them by this point in time as evidenced by her repeated attendances upon medical professionals, I find that during at least one of those multiple episodes a week she would have been able to hit record so that the monitor would have captured at least one episode, and in doing so would have then provided a reading which captured the PAF.

126. The defendant accepts that if captured and diagnosed within the timescale advanced by Dr da Costa, the necessary anticoagulants would have been given, and that would have prevented the stroke.

127. Considering such findings, it follows that the defendant's breach of duty has caused the stroke which the claimant suffered, and I grant judgment in her favour with damages to be assessed.

G. FURTHER MATTERS

128. It is almost a decade following the claimant's stroke and almost 7 years on from the issue of court proceedings. Quite simply, that is too long. I appreciate in the context of these

proceedings the Covid-19 pandemic will have played its part in delay, but there needs to be real motivation from all involved in claims of clinical negligence, from lawyers, parties, experts and courts, to make progress and get cases to a conclusion as swiftly as reasonably possible. The legal maxim, justice delayed is justice denied, speaks loudly. With that in mind, I invite the parties to agree directions to now progress this case to what will be a conclusion to consider the assessment of damages; I will retain case management for judicial continuity.

129. Finally, I express my sincere thanks to all those who have given evidence at this trial. I also thank Mr Lambert and Ms Corkill who have been of tremendous assistance.

HHJ Robinson