OUTER HOUSE, COURT OF SESSION

[2025] CSOH 111

A247/21

OPINION OF LORD YOUNG

In the cause

CLAIRE BAYNE or WILKIE

Pursuer

against

TAYSIDE HEALTH BOARD

Defenders

Pursuer: L Sutherland KC, H Masters; Irwin Mitchell Scotland LLP
Defenders: N Mackenzie KC, S Dundas; NHS Scotland Central Legal Office

4 December 2025

Introduction

[1] Maisie Wilkie was born on 6 April 2010 at the Midwifery Led Unit at Perth Royal Infirmary (PMLU). She suffered a hypoxic brain injury during labour resulting in severe and profound disabilities. This action is brought on her behalf by her mother, Claire Wilkie, against the defenders who operate the PMLU and employ the midwives working within the unit. It is accepted by the defenders that had the pursuer's labour taken place at Ninewells Hospital in Dundee, Maisie would have been born free of injury. In broad terms, the issue in this case is whether any breach of duty occurred during the ante-natal period which resulted in Maisie being delivered at PMLU as opposed to Ninewells.

Proof before answer

[2] The proof before answer was restricted to issues of negligence and causation. I heard evidence and submissions in this case over 8 days. The pursuer led evidence from herself, Alan Wilkie, midwife Bannerman, midwife Suttie, midwife Smith, midwife Clark and midwife Gardiner. These witnesses adopted their witness statements as part of their evidence. The evidence of Amanda Nicholson contained within her witness statement was agreed as the equivalent of her evidence. Expert evidence was led for the pursuer from Jean McConville (midwifery), Dr Andrew Lyon (consultant neonatologist) and Dr Phillip Owen (consultant obstetrician and gynaecologist). The defenders led expert evidence from Professor Julia Sanders (midwifery) and Dr Evelyn Ferguson (consultant obstetrician and gynaecologist). Parties entered into two joint minutes, the salient parts of which are summarised in the following section of this Opinion.

Agreed or uncontroversial facts

[3] The pursuer was working as a teacher prior to Maisie's birth. This was her first pregnancy. At the time of her pregnancy, she lived with her then partner and now husband, Alan Wilkie, approximately midway between Perth and Dundee. She received ante-natal care from the PMLU through her GP practice. She was aware that she could give birth at either PMLU or Ninewells. She was attracted to the PMLU for delivery because of the birthing pool option and she had been advised by friends that it was more likely that she would have the baby delivered by a familiar midwife. However, she was not resistant to delivery of her baby in Ninewells if that was appropriate.

[4] The NHS Scotland publication "Pathways for Maternity Care" (March 2009) set out a traffic light system to guide the maternity care pathway. A green pathway was midwife led

care for healthy women with uncomplicated pregnancies. These women would be offered a midwife as the lead professional, but it was open to the patient to opt for her care to involve her GP and/or an obstetrician. The red pathway was for maternity team care in which a consultant obstetrician would be the lead professional sharing care with midwives, GPs and potentially other appropriate health professionals. The red pathway was for women with significant medical or obstetric factors. The amber pathway was engaged where an assessment was required of a potential medical, obstetric or social risk factor. Following the further assessment on the amber pathway, the patient might move to the green or red pathway as appropriate. The amber pathway reflected that risks during pregnancy are dynamic and change over time. Each ante-natal interaction which a midwife or doctor has with a patient involves a risk assessment with reference to these pathways. A key philosophy underpinning the pathways was that the expectant mother would be given current evidence-based information so that she could be fully involved in decisions as to the care which she and her baby would receive.

[5] In 2010, PMLU provided both ante-natal care and birthing facilities. The ante-natal day clinic was on the same floor of the building as the birthing unit. The ante-natal day clinic included an ultrasound scanning suite which was manned with sonographers. Obstetricians operated from the ante-natal day clinic during weekday core hours. At other times, midwives working within the PMLU could contact obstetricians at Ninewells by telephone for advice. The birthing unit had two birthing pools and three delivery rooms.

[6] The birthing facility at PMLU was staffed by midwives. It was not a suitable place for delivery if the mother or her baby were likely to require medical input. Where birth required to be induced, the patient would be booked into Ninewells. A mother requiring instrument assisted delivery or a caesarean section would be booked into or transferred to

Ninewells Hospital. There was no dedicated ambulance on standby to take patients from the PMLU to Ninewells. If a transfer was required, an emergency call would be placed from the PMLU. The ambulance station was close to the PMLU and, in practice, an ambulance would be at the PMLU very quickly.

[7] Although a cardiotocography machine ("CTG") was available within the PMLU, it was not the standard practice for routine CTG monitoring throughout labour. At the PMLU, the fetal heart rate would be monitored by the midwife using intermittent auscultation from the start of the second stage of labour. This involved a handheld Doppler device which is placed on the mother's abdomen. The fetal heartbeat is measured numerically by the device, and the midwife can also hear the mother's heartbeat.

[8] The PMLU was an appropriate setting for the delivery of babies only where the mother and baby were assessed as presenting a low risk for complications. That meant that the mother required to be on the green pathway if labour was to proceed at PMLU. Each appointment with an expectant mother in the lead up to delivery involved a form of risk assessment to see whether any complications were present or might be reasonably anticipated.

[9] Tours of the PMLU by expectant parents were normally carried out by staff from the parent education department. If individuals wished a tour of the facilities at Ninewells, they would be told to contact the parent education department.

[10] Ninewells is approximately 22 miles from PMLU. Ninewells also had a midwifery led unit which had opened in 2009. Within that unit, the facilities would be comparable with the PMLU. As a teaching hospital, Ninewells had obstetric and neo-natal staff available 24 hours per day. An ultrasound facility was on site at Ninewells. Ninewells also had surgical theatres where a mother could be transferred if problems arose during labour.

At Ninewells, CGT monitoring throughout the labour was available and would be the standard practice if there was a concern that a baby was growth restricted.

[11] The pursuer met with a midwife on a regular basis with details of the examination being recorded in a booklet retained by the pursuer. From week 24 through to week 40, the examination included regular measurements of the Symphysis-Fundal Height (SFH).

[12] The SFH is a measurement in centimetres of the distance from the top of the symphysis-pubis to the top of the uterus (the fundus). It is a measurement of the size of the uterus rather than of the fetus itself, but it is used as an approximation for fetal growth. The broad rule of thumb is that the SFH in cms should equal the number of weeks of gestation. As this is an approximation, it is normal for clinicians to accept a tolerance of a few cms.

[13] In 2010, midwives employed by the defenders recorded the SFH against the number of weeks of gestation. The defenders did not use growth charts which plotted the SFH for the fetus against different centile guidelines.

[14] In 2010, the defenders had a referral protocol containing two columns. The first column listed a number of different conditions which were "problems arising during pregnancy". The second column listed specific actions which were to be taken in response to the problem. The protocol included the following problem and action:

PROBLEM	ACTION
Fundal height 3 cm $\leq$ gestation or clinically small for dates or oligohydramnios. Use own clinical judgement.	Refer Consultant Clinic with scan within 1 week

[15] A fetus which appears to be small for the number of weeks of gestation could be healthy or could be suffering from a growth restriction. A growth restriction can be the

result of the placenta providing insufficient support for the needs of the fetus. Placental insufficiency can emerge at a late stage in the pregnancy. Placenta size is not routinely measured in the ante-natal period. There is no direct test to assess placental function. Inadequate placenta function is most likely to be identified by an ultrasound measurement of the fetus if that scan reveals that the fetus is growth restricted. While an ultrasound scan cannot assess the size of the fetus with absolute accuracy, it provides a far more accurate measurement than can be achieved by the SFH measurement.

[16] The pursuer had an uneventful pregnancy and did not have any particular risk factors. She proceeded on the green pathway other than for a brief time on the amber pathway noted in para [17] below. The pursuer's SFH measurements recorded by midwives are summarised in the following table. The table also summarises the degree to which the head remained palpable following engagement within the pelvis:

Gestation in weeks	SFH in cms	Head palpable
24	24	
28	27	
32	32	
34	34	
37	37	4/5ths palpable
38	38	3/5ths palpable
40	37	2/5ths palpable

[17] Around 36-37 weeks, there was a concern that the pursuer's baby was in a breech position. She moved to the amber pathway while an ultrasound scan was arranged. The ultrasound scan confirmed that the baby was cephalic (head down and facing the birth canal). This ultrasound scan also assessed Maisie as being around the 50th centile in size. The pursuer returned to the green pathway.

[18] Head engagement within the mother's pelvis can commence from around 37 weeks. Early head engagement is more common in a mother's first pregnancy. The degree of engagement can be estimated by the midwife palpating the mother's abdomen.

[19] On 1 April 2010, the pursuer was assessed by midwife Bannerman. This was also her due date. The SFH was measured at 37cms at 40 weeks and midwife Bannerman considered that 2/5ths of the head remained palpable. No further ultrasound scan was arranged by midwife Bannerman. The pursuer reported normal fetal movements at this ante-natal appointment. All other checks on the pursuer's health and pregnancy were normal at this appointment.

[20] The pursuer went into labour at PMLU on 6 April 2010. She was attended by midwife Clark from 0740 hours when she was in the first stage of labour. Midwife Clark was joined by midwife Mitchell when the pursuer entered the second stage of labour. Between 1100 hours and 1305 hours, the midwifery staff failed to auscultate the fetal heart rate every 5 minutes. Intermittent auscultation was conducted by midwife Clark using a handheld Doppler at 5 minute intervals from 1310 hours. Midwife Clark had no concerns about the fetal heart rate until shortly before delivery when the fetal heart rate dropped to 100 bpm and then to 60 bpm. A decision was taken to carry out an emergency episiotomy and Maisie was delivered at 1415 hours. A paediatric resuscitation team were called at 1420 hours and arrived at 1425 hours. Following Maisie's birth, she was transferred to Ninewells as there was concern about her breathing.

[21] At birth, Maisie weighed 2920g which is around the 9th or 13th centile depending on which population study is used. The placenta weighed 408g. Although no specific abnormality was detected in the placenta on histological examination, the size of the placenta was small. The ratio of the birth weight to the weight of the placenta was abnormal

at 7:2, and this indicated that the placenta was too small to support Maisie's development *in utero*.

[22] As a direct consequence of both chronic partial hypoxia and an acute and profound hypoxic event during labour, Maisie has quadriplegic cerebral palsy.

[23] Had the pursuer been referred for an ultrasound scan on 1 April 2010, a growth restriction would have been suspected with the result that the pursuer would have been moved from the green pathway onto the red or amber pathway. This would have necessitated birth taking place at Ninewells as babies suspected to be growth restricted often lack the resources to cope with an arduous labour.

[24] If Maisie had been born between 1215 - 1245 hours on the 6 April 2010, she would have been born uninjured.

Disputed issues

[25] The pursuer's case on record contains four distinct averments of breach of duty. These can be summarised as (i) a duty to advise the pursuer of the respective risks of delivery options available at PMLU or Ninewells including a duty to provide accurate information on transfer times from PMLU to Ninewells, (ii) a duty on midwife Bannerman to refer for a ultrasound scan on 1 April 2010 in accordance with the defenders' referral protocol, (iii) a duty on the midwives during labour to carry out intermittent auscultation every 5 minutes from 1100 hours and after each contraction from 1230 hours, and (iv) a duty to make an urgent call for paediatric assistance at 1416 hours. At the conclusion of the proof, submissions were focused on only two grounds of fault being (i) the information provided in relation to an emergency transfer time from PMLU to Ninewells and (ii) the failure to send the pursuer for an ultrasound scan after the SFH was measured at 37cms. There was a

formal admission by the defenders that in failing to auscultate the fetal heart rate every 5 minutes between 1100 hours and 1305 hours on 6 April 2010, there had been a breach of duty by the midwifery staff. However, the pursuer did not submit that this admitted breach was causative of injury to Maisie. With the refocussing of the pursuer's case, it is necessary only to summarise the disputed factual evidence relevant to these two remaining issues.

[26] In relation to the information about transfer times between PMLU and Ninewells, the pursuer and Alan Wilkie both spoke of attending a tour of the PMLU in February 2010. They were taken by two midwives for a tour of the facilities. By chance, when they were given the opportunity to speak to a mother who had just given birth, it turned out that the mother in question, Amanda Nicholson, was a work colleague of Alan Wilkie.

[27] The pursuer's evidence was that during the tour there was discussion about how emergencies would be dealt with at the PMLU. She was given to understand that there would be an ambulance on standby to take the mother to Ninewells. She was told that it was quicker to transfer from PMLU to the surgical theatre at Ninewells than it was for a porter to take a patient from the labour unit at Ninewells to the theatre in Ninewells. She was certain that a time of 12 minutes had been given to her as the time to transfer a mother from PMLU to Ninewells. She felt reassured after the tour. She was asked in examination in chief whether she would have been concerned if she had been told that a transfer time could not be guaranteed to which she answered yes. She said that if she had been told that the transfer time would be an hour, that would have changed her decision on where to give birth as she would presume that to be too long.

[28] Alan Wilkie's evidence was similar to the pursuer's evidence on this issue. He also recalled being given a time of 12 minutes for the transfer time from PMLU to Ninewells. He was given to understand that an ambulance would be on standby and he accepted that. As

a police officer, he had often been aware of an ambulance waiting at the PMLU. In his role as a police officer he recognised that a 12 minute transfer time was extremely quick, but he believed it could be achieved by police drivers in the middle of the night with no traffic on the road. His evidence was that they were not told that the transfer time could not be guaranteed. If they had been told that the transfer time was closer to an hour and there was no ambulance on standby, he considered that they would have opted for the pursuer to give birth at Ninewells.

[29] Midwife Suttie was involved in transfers to Ninewells. The time for transfers would vary but 20 minutes was the approximate time in her experience. Midwife Smith said that she had been involved in transfers to Ninewells and estimated that the time from PMLU birthing suite to Ninewells was 20-25 minutes. Her experience from 2010 was that they did not have any problems securing an ambulance for transfers. Midwife Clark had been involved on occasions when a mother was transferred to Ninewells. She agreed that the woman had to be assessed as safe for transfer and that transfer would not be desirable if the baby was about to be delivered. In her experience, ambulances would attend quickly after being summoned by an emergency call. Midwife Gardiner had identified from an app which was not available in 2010 that the average ambulance transfer time is shown as 20 minutes. No evidence was led from the individuals who conducted the tour for the pursuer and her husband in February 2010 as the defenders had been unable to identify those persons from records.

[30] In relation to the ante-natal examination on 1 April 2010, the pursuer was clear that she was not told that a 3cm discrepancy between the SFH and the gestation age had been identified at that examination. She was aware that there should be a rough match between the SFH measurement in cms and the number of weeks of pregnancy. Over the course of

her pregnancy, she had been told by the midwives that her measurements matched. There was no discussion about the placement of the baby in her pelvis on 1 April. She did recall discussion of a membrane sweep taking place at 41 weeks if labour had not commenced. As far as she was aware from her ante-natal care, everything was going well at this point.

[31] Midwife Bannerman had no recollection of her interactions with the pursuer and her evidence was based on the records and her normal practice. She was first informed that an issue had arisen in relation to her assessment of the pursuer's pregnancy after she had commenced working as a family nurse in 2012. Midwife Bannerman saw the pursuer for ante-natal checks on two occasions (18 March 2010 and 1 April 2010). On each occasion, she carried out an assessment of the pursuer and noted down a number of measurements including the SFH. Midwife Bannerman acknowledged that a midwife required to be alert to a discrepancy between the SFH and the gestation age. Her evidence was that a discrepancy between the SFH and the gestation age was one part of a wider process involving clinical judgement. Such a difference could indicate a problem and then it would be for the midwife to assess the situation and use her clinical judgement as to whether it was necessary to refer for further investigation. She would have regard to the findings on examination of the patient as well as to the patient's pregnancy history. She observed that the ultrasound scan carried out around week 37 had assessed the fetus to be around the 50th centile. She did not consider that a referral for a scan was mandated under the protocol if the SFH was 3cm $\leq$ than the gestation age. Her position was that if, having applied her clinical judgement, she did not consider that there was a problem with fetal growth, then she would not discuss the discrepancy with the mother. It was not her practice at the time to document that she had exercised her clinical judgement not to refer for a scan. She accepted that it was possible for the mother to appear well but for the baby's growth to be tailing off.

[32] Joan McConville was led by the pursuer as an expert midwifery practitioner. Her evidence was that it was standard for midwives to be taught during their training that the SFH in cms should equal the gestation in weeks. In all the places that she had worked, a 3cm discrepancy between the SFH and the gestational age was taken as a "red flag" requiring further investigation by ultrasound scan. She did not accept that the engagement of the baby's head shortly before birth would be considered by a midwife as an explanation for the discrepancy. This protocol did not qualify the 3cm criteria as only applying prior to the engagement of the head. She considered that the protocol issued by the defenders was unusual in referring to the use of clinical judgement. She accepted at the joint meeting with Professor Sanders that a SFH of 37cms at 40 weeks was within the normal range for many women.

[33] The pursuer also led expert evidence from Dr Owen as an obstetrician. His evidence was that there was no single recognised method for assessing and utilising SFH measurements. SFH measurements had replaced the former practice of assessing the fundal height by the use of anatomical marks on the mother's torso. Some health boards focused on a single measurement while others would utilise a series of measurements on pre-printed charts. Those charts could be standard or customised for the mother. A local protocol had a high status in obstetric care. This was a high-risk area in which protocols required to be followed unless there were very good reasons not to. In his view, it was not logical to use clinical judgement on top of an objective measurement such as the SFH. The SFH measurement was a first line screening tool to assess which patients could benefit from scanning. The SFH measurement was a low sensitivity test so, in his view, it made no sense to exclude some woman with a discrepancy of 3cm from being scanned. This would result in fewer under weight babies being identified prior to labour. He agreed that it was possible

for fundal height to drop on head engagement and did not exclude the possibility that the SFH measurement could also reduce for some women, but as a matter of generality the SFH was expected to increase up to week 40. He referred to table 2 in the Intergrowth Study from 2016 referred to by Professor Sanders which showed that the SFH in cms continued to increase for each of the selected centiles through to week 40. Dr Owen noted that if head engagement was recognised as reducing the value of the SFH measurement as a screening tool then either the SFH measurement would stop around week 37, or there would be qualifications in the medical literature about the conclusions to be drawn from a 3cm discrepancy after the head had started to engage.

[34] Professor Sanders was the midwifery expert for the defenders. She described the SFH measurement as a first level screening tool while an ultrasound scan was a screening tool being used diagnostically. She supported the decision of midwife Bannerman not to make the referral for an ultrasound scan. Her evidence was that midwife Bannerman was entitled to conclude that the head engagement was an explanation for the 3cm discrepancy. The head engagement was a generally positive sign. Although the standard textbook by Myles did not discuss the SFH measurement reducing when the head engaged, an illustration in that textbook showed that the fundal height at week 36 was higher than at week 40. The Intergrowth study from 2016 demonstrated that a SFH of 37cms at 40 weeks was perfectly normal. Such a measurement would indicate a fetus around the 34th centile. It would only be if the fetus was below the 10th centile that it would be considered small for gestational age. The SFH measurement of 37cms was essentially a normal finding for a midwife in 2010 and did not suggest that there was a problem. Midwife Bannerman was entitled to apply her clinical judgement by reference to the head engagement, the pursuer's good general health and the absence of any other adverse features, to conclude that a

referral scan was not required. Having concluded that there was no reason to refer for a scan, there was no need for midwife Bannerman to discuss this with the pursuer. The defenders' expert obstetrician, Dr Ferguson, described the SFH measurement as a crude screening tool which allowed ultrasound resources to be focused. As a crude screening tool, it gave rise to a number of false positive results, but Dr Ferguson said that was still "worth it" as it enabled ultrasound scans to pick up the fetuses which were small. She considered that head engagement could affect the SFH measurement and that there was a flattening of the curve in the last few weeks for first time mothers. A normal weight for a baby would be between the 10th and 90th centiles. A SFH of 37cm would not raise any particular alarm bells. She considered that the reference to using clinical judgement in the protocol was to ensure that a midwife made a referral where she considered that a baby was small for dates despite the SFH being within 3cm of the gestational age. She then expressed the view that where there was a discrepancy of 3cm or more, it was for the midwife to use her own clinical judgement whether to refer or not. She agreed that a ultrasound scan in April 2010 would have identified a concern that Maisie suffered from growth restriction with the consequence that obstetric support would have been present during labour.

Analysis

The transfer time case

[35] In final submissions, the focus of the pursuer's case on transfer times developed beyond a simple dispute as to what might have been said about the length of time to transfer a patient from PMLU to Ninewells. It was submitted that the critical failure was that the defenders' staff did not make clear that there was no guaranteed time in which the emergency transfer would be completed. Emphasis was also placed on the inaccurate

information that an ambulance would be on standby. In final submissions, the defenders renewed an objection based on the lack of specification as to who is alleged to have given the incorrect information on travel time to the pursuer, and the defenders advanced a new objection to the pursuer's case that travel times were not guaranteed.

[36] I shall uphold the defenders' objection in part. The pursuer's case was ultimately focused on a failure of the defenders' staff to make clear that there was no guaranteed time by which the transfer could be achieved. There is no hint in the pleadings of such a case. The averments in Articles 11 and 16 of condescendence refer only to the transfer time being understated. The written statements from the pursuer and her husband lodged in advance of the proof do not focus on the lack of a guaranteed time for the transfer. As far as I can detect, the concept of a guaranteed time for transfer was first raised in questions during examination in chief of the pursuer and her husband. At its highest, the evidence from the pursuer and her husband was that they would have been concerned if they had been told that there was no guaranteed transfer time. There was no suggestion that they were told by the defenders' staff that the time mentioned was guaranteed. Nor was it explored whether they did understand the 12 minute time (or any other time) to be guaranteed. I consider that this is a new case articulated only in final submissions and based on a couple of brief answers to leading questions. It would be unfair to expect the defenders to deal with this new case at such a late stage in proceedings so I sustain the defenders' objection to that extent. However, I repel the defenders' original objection in relation to that part of the transfer time case which is based on the allegation that the defenders' employees incorrectly advised a transfer time of 12 minutes. In relation to that part of the transfer time case, the pursuer has pleadings sufficient to cover that allegation. The defenders have known since Alan Wilkie's statement was produced that a date in mid-February 2010 was identified as

the date of the visit. It is unrealistic to expect the pursuer to be able to name the specific midwife who gave the tour on that date. While it is unfortunate if the defenders' own records do not disclose who carried out the tour, that is not something which the pursuer bears responsibility for. The pursuer has given as much specification as to this ground of fault as could reasonably be expected.

[37] The evidence of the pursuer and Alan Wilkie was that they were told on the orientation visit to PMLU that it would take 12 minutes to transfer a patient from the PMLU to Ninewells. They say they were also told the ambulance would be on standby. The evidence of the midwives was that transfer times would vary but broadly it might take between 20-30 minutes. There was no dedicated ambulance on standby at PMLU but, in practice, the midwives had not been conscious of delays in securing an ambulance when a patient required urgent transfer.

[38] I am unable to accept the evidence of the pursuer and her husband on this matter. It seems to me inherently unlikely that a midwife conducting a tour would suggest 12 minutes as a transfer time from PMLU to Ninewells which is significantly shorter than any of the times quoted by the midwives in evidence. A time of 12 minutes would strike most people as an exceptionally short time to travel the 22 miles from Perth to Ninewells even in an emergency vehicle. Indeed, Alan Wilkie stated that as a police officer, he thought only some police drivers could achieve such a time and that would depend on the very best travel conditions. It seems likely that the Wilkies simply misheard the time stated or, as a consequence of the turmoil following Maisie's birth, have incorrectly recalled the detail of the visit. Nor do I find that they were told that an ambulance would be on standby. The evidence was that an ambulance could be summoned very quickly but there was no dedicated ambulance for the PMLU. I do not accept that a midwife would give incorrect

information about that matter. There was a suggestion in the evidence of the pursuer that, in retrospect, she perceives that the information provided to her in relation to the PMLU overemphasised the positive features while underplaying the negative factors. I make no criticism of the pursuer if that is the impression left with her after what her family has experienced since 6 April 2010, but nor do I accept from the evidence before me that the defenders' staff sought to mislead her as to the respective advantages and disadvantages of PMLU compared with Ninewells.

The ultrasound referral case

[39] The pursuer's case is that midwife Bannerman ought to have made an urgent referral for an ultrasound on 1 April 2010. The protocol mandated such a referral if the measured SFH was 3cm $\leq$ gestational age in weeks. Until an ultrasound scan had satisfied a clinician that Maisie was not growth restricted, the pursuer ought to have been on the amber pathway with the consequence that labour would take place at Ninewells. There was no room for exercising clinical judgement in relation to the SFH discrepancy. This was a "red flag" which required to be further investigated by ultrasound. If, contrary to the pursuer's primary position, the protocol fell to be understood as requiring the midwife to exercise her clinical judgement after a 3cm discrepancy had been identified between the SFH and the gestational age, then midwife Bannerman failed to exercise the appropriate skill and care in determining that a referral for a growth scan was unnecessary.

[40] The defenders focused on the wording of the protocol. Midwives are skilled practitioners well able to use their training and experience to evaluate risks for the mother and baby. The protocol required midwives to exercise their clinical judgement in evaluating whether a referral for a growth scan was appropriate. Midwife Bannerman had considered

that the 3cm discrepancy was one which could be explained by the engagement of the head in the pursuer's pelvis. Although this was not discussed within published medical literature, the illustration in Myles demonstrated the well-known "lightening" which occurs when a baby's head engages with the baby dropping further down into the maternal pelvis. A SFH of 37cms at 40 weeks is not an abnormal measurement. Where the pursuer had an uneventful pregnancy, a healthy medical profile, and there were no other specific health concerns for mother or baby identified at the ante-natal examination, midwife Bannerman's decision not to refer for ultrasound scan on 1 April 2010 was a reasonable exercise of clinical judgement.

[41] The first matter for determination is what took place at the ante-natal examination on 1 April 2010. There is a lack of evidence to support midwife Bannerman's belief that she identified the discrepancy and then exercised her clinical judgement. Nothing was said to the pursuer to indicate that there was a potential issue with the SFH measurement which the midwife was applying her mind to. Midwife Bannerman's evidence was that she would not have said anything to a mother if she had decided that there was no need to change from the previous planned route for the mother. But the absence of any discussion is also consistent with midwife Bannerman failing to recognise or act on the discrepancy. The defenders' written submission suggested that it was "far-fetched" to believe that this midwife failed to notice or appreciate the 3cm discrepancy. I disagree. I found midwife Bannerman to be a straightforward witness, but good employees can make errors of omission especially if their attention is more directed to other matters at the critical time. On the evidence before me, it appears that the focus at the ante-natal examination was on a membrane sweep if labour did not start spontaneously. It also seems to me that where the underlying ethos of the pathway system is to involve the mother in discussing the birthing option which she feels most

comfortable with, it is not unreasonable to think that a midwife is likely to have some general discussion with the mother in relation to an issue which requires the midwife to assess. The absence of any discussion with the pursuer causes me to doubt whether midwife Bannerman did recognise and react to the discrepancy at the time. The medical notes themselves do not help. There is no indication in the medical notes that an ultrasound scan was considered but deemed unnecessary following an assessment by the midwife. During the course of submissions, senior counsel for the defenders made the point by reference to *McConnell* v *Ayrshire & Arran Health Board* 2001 Rep LR 85 at para [28], that the courts should not encourage "defensive record keeping" by expecting medical notes to contain a complete record of events. Lord Reed's observation in *McConnell* is a sound one but it does not follow that the court should simply accept the oral evidence of a clinician as to what that clinician believes they would have done where the medical notes are silent.

[42] Midwife Bannerman said that she followed her usual practice, but I was left in real doubt what her usual practice was in 2010 when dealing with mothers whose SFH measurement demonstrated a 3cm discrepancy late on in their pregnancies. It was accepted by the midwifery experts that a SFH of 37cms at 40 weeks is not an unusual finding in itself. Presumably a reasonable number of women examined by midwife Bannerman and other midwives at PMLU would have had comparable SFH measurements at 40 weeks, with or without a degree of head engagement. I did not hear any evidence from midwife Bannerman (or other PMLU midwives) as to what further steps were taken by way of a "usual practice" to delineate those mothers who would be referred for a scan from those mothers who would not. For example, given the emphasis placed on head engagement in the present case, I was surprised that midwife Bannerman did not explain in what circumstances the head engagement was considered to be an adequate explanation for any

SPH discrepancy and when it might not be. In the absence of evidence that by 1 April 2010, midwife Bannerman had established a usual practice in comparable situations, it is difficult for this court simply to accept an assertion that she must have dealt with the pursuer using her usual practice.

[43] For these reasons, I find myself unable to accept that midwife Bannerman took a conscious decision not to refer for an ultrasound having taken into account the head engagement, ante-natal history and other clinical findings. Whether she failed to recognise that the discrepancy was a potential concern, or she failed to action the scan for some other reason, is impossible to know at this stage.

[44] The construction of the protocol is not without difficulty. It was submitted on behalf of the pursuer that the terms of a response dated 26 August 2016 to a Freedom of Information ("FOI") request could be used as a cross-check in support of the construction proposed by the pursuer. That FOI response provided a brief summary of the relevant parts of the protocol. The summary suggested that a woman with a SFH discrepancy of 3cm would be referred for a growth scan without any qualification. I do not consider that this summary can provide any assistance in construing the original document. Nor did I find it of any assistance to be told how individual midwives or experts construed the words of the protocol. What I did find of greater assistance was evidence of the factual background in which the protocol operated. It was helpful to have evidence from the various expert witnesses as to the role which a SFH measurement could have in identifying the need for further investigations.

[45] The direction to "use own clinical judgement" only appears in one place within the protocol although it is obvious that a large number of the conditions listed within the "problem" column would require a midwife to use clinical judgement to assess whether

such a condition was suspected. Other conditions are defined by reference to a particular measurement. For example, hypertension is defined as a systolic blood pressure greater or equal to 160mmHg on any occasion or diastolic blood pressure greater or equal to 100mmHg. The inclusion of the phrase "Use own clinical judgement" appears in a box which sets out three conditions of which one is a measurement ("Fundal Height 3cm ≤ gestation") and two would require clinical assessment ("clinically small for dates" and "oligohydramnios"). I consider that the inclusion of the reference to using clinically judgement is to ensure that a midwife who suspected that a fetus was "small for dates" or that there was a reduction in amniotic fluid, would refer for a scan even if the SFH did not show a discrepancy of 3cm or more. In other words, the midwife who suspects a growth problem or reduction in the amniotic fluid, should not hold off instruction of an ultrasound scan on the basis that the SFH measurement remains within a reasonable range. That provides a simple and clear reason for the inclusion of the phrase in this box. The phrase "use own clinical judgement" only applies to the second and third conditions identified in the box. It does not qualify the first condition, namely the SFH measurement ≤ 3cm of gestational age. There are a number of reasons which support that conclusion.

[46] In the first place, it is difficult to envisage how a clinician can use clinical judgement to identify a potential problem where the problem itself is defined by an objective measurement.

[47] Secondly, if – as the defenders suggest- the protocol allows clinical judgement to find that a 3cm discrepancy does not indicate that the fetus may be growth restricted (ie "small for dates") then why include any reference to the measurement in the problem section at all? It would be sufficient to identify the problem as "small for dates" and then allow the midwife to consider a range of factors including the SFH measurement if felt appropriate.

[48] Thirdly, there was agreement between the experts that the reference to using clinical judgement was, at least in part, to encourage a midwife to refer for a scan if she considered that the fetus was small for dates even if the SFH measurement did not breach the 3cm ≤ gestation age criteria. In that situation, the satisfactory SFH measurement would not prevent a scan being arranged if the midwife had a concern that the fetus was small for dates. It would appear odd if a different result would follow if the situation was reversed and there was an unsatisfactory SFH measurement, but the midwife had no other information to suggest the fetus was small for dates.

[49] Fourthly, it is important to remember what the protocol is doing. This is a referral protocol for further investigations into an issue which can have catastrophic consequences for the fetus if the growth restriction remains undetected prior to labour. In relation to the SFH measurement, this is a first line sampling criteria used to identify cases in which an ultrasound might confirm that an important clinical issue is present. The SFH measurement itself is not diagnostic. Dr Owen explained that placental inadequacy leading to growth restriction can be difficult to identify during pregnancy. The SFH is a measurement which can be obtained by a midwife in almost any location and with minimal equipment. The measurement can be used to focus upon a cohort of pregnant women who might benefit from further investigation by ultrasound scan. It was accepted by all expert witnesses that the SFH of 3cm ≤ gestational age is a crude test such that the cohort will include a large number of false positives, but as Dr Ferguson explained, this is justified as it will also identify a number of growth restricted babies prior to the commencement of labour. Where the scan itself is non-invasive, safe for the fetus, and relatively easy to arrange, there is no real downside to scanning a larger number of women. Therefore, seeking to further restrict

the number of ultrasound scans by applying a "clinical judgement" hurdle after the "measurement" hurdle makes little sense from a screening perspective.

[50] Fifthly, I was not persuaded by the evidence before me that a midwife faced with a SFH which was 3cm ≤ gestational age had access to any clinical information which could give her sufficient reassurance that the fetus was not growth restricted. In simple terms, where it is agreed that an ultrasound scan is an accurate and accessible diagnostic tool for identifying a fetus with a growth restriction, it would seem unusual to limit access to that tool by reference to a clinical judgement which cannot easily and accurately identify if the fetus has developed a growth issue. So, for example, midwife Bannerman said that she placed reliance on the pursuer's healthy profile; uncomplicated pregnancy history; no reported reduction in fetal movements; and previous ultrasound scan which placed Maisie on the 50th centile. Regardless of whether she did have regard to such factors, none of these factors provides particularly persuasive evidence that the fetus is growing normally at the end of the pregnancy. It was a matter of agreement that the fetus could develop a growth restriction, yet the mother might exhibit no problems in her own health. It was also accepted that placental insufficiency may manifest late in pregnancy so that a re-assuring scan at 37 weeks did not indicate that the fetus was not growth restricted by 40 weeks. Dr Owen explained that reduced fetal movements are usually one of the last signs to be observed only after growth restriction has been present for some time. To interpret the protocol in the way submitted by the defenders would result in the midwife making a clinical judgement that the fetus is not growth restricted with the consequence that the best diagnostic tool available at that stage is not called upon.

[51] Midwife Bannerman placed emphasis on the evidence that the head had engaged to explain why the SFH measurement had reduced to 37cm from 38cm, and she was supported

on that by Professor Sanders and Dr Ferguson. Leaving aside the pursuer's retort that the protocol could readily have provided that the 3cm ≤ gestational age criteria did not apply once the head was engaged, and Dr Owen's observation that SFH measurements do not stop being taken at 37 weeks, there was no evidence that midwives are taught in their training that a late reduction in SFH can be explained on this basis. None of the midwives gave evidence that this was part of their training. The defenders' final submission accepted that there was no literature before the court which discusses reduction of the SFH measurement once the head engages. The Intergrowth longitudinal study from 2016 relied upon by Professor Sanders for the proposition that a SFH of 37cms at 40 weeks was between the 10th and 50th centiles, also confirmed that the general trend is for the SFH to continue to increase up to 40 weeks without any reduction. As I understood the evidence of Dr Owen, he was not disputing that fundal height might reduce for some women on head engagement, but his position was that there was no medical literature which demonstrated that any reduction in the SFH measurement after the head had engaged could safely be attributed to that reason as opposed to a potential growth problem.

[52] The high point of the defenders' case on this issue was a diagram from Myles textbook on *Midwifery* (15th Edition) at figure 17.2 which showed fundal heights on a female torso for certain stages of pregnancy. The diagram placed the line for week 40 below the line for week 36. Professor Sanders's evidence was that this diagram reflected the fact that the fundal height commonly reduced after week 36 and that a reduced SFH measurement at week 40 is explained by the head engaging. She acknowledged that the text referred only to the "height of the fundus in centimetres should correspond with weeks of gestation to the nearest 3cm". A diagram which does not appear to correspond with the text which accompanies it, is not firm ground on which to build a proposition. However, the diagram

can be understood alongside the text if the lines on the torso simply represent anatomical markers of the height of the fundus. In other words, the fact that the line for week 40 is lower on the torso than the line for week 36 does not mean that the SFH measurement of the three-dimensional bump at week 40 will be less than the measurement at week 36. That explanation, which was suggested by Dr Owen, would align the text and the diagram, but it negates the point which Professor Sanders sought to draw from the diagram. My conclusion from the evidence was that it is not universally accepted that SFH measurements will reduce in the last weeks of pregnancy due to the engagement of the baby's head. But even if it is accepted as a possibility that for some women a reduced SFH measurement may turn out to be the result of head engagement, medical literature does not give comfort to a midwife that she can assume that the emergence of a 3cm ≤ discrepancy in late pregnancy is due to any head engagement without instructing a scan.

[53] For these reasons, I conclude that the defenders' protocol did require midwife Bannerman to arrange for an ultrasound scan of the pursuer once the SFH had been measured at 37cms on 1 April 2010. She would have been wrong to conclude that a referral was inappropriate once that discrepancy had been identified. It is a matter of agreement that if an ultrasound scan had been carried out, the scan would have raised a concern that Maisie was growth restricted and this would have resulted in the pursuer giving birth at Ninewells. If for any reason it had not been possible to arrange an ultrasound scan before labour commenced – and the evidence was that scans could be arranged quickly for women close to the date of confinement – labour would still have taken place at Ninewells as the pursuer would have been moved to the amber pathway while the ultrasound scan was awaited. At Ninewells, the pursuer's labour would have involved use of a CTG to continuously monitor the fetal heartbeat, heart rate variability, and accelerations and

decelerations after each contraction. Had Maisie shown signs of distress, the CTG would have alerted staff. Any indication that Maisie was suffering from distress would have resulted in her delivery being expediated before irreversible damage was caused.

[54] I have determined this case by reference to the terms of the protocol and midwife Bannerman's failure to apply that protocol correctly. Both parties also addressed me on whether there was a failure of ordinary practice on the part of midwife Bannerman. This only becomes a relevant issue if I had determined that the protocol did require the midwife to exercise her clinical judgement. It would then be necessary to consider what would amount to normal practice for a midwife exercising clinical judgement in the light of a SFH discrepancy. Given my factual finding that midwife Bannermen did not make a clinical judgement on the 1st April 2010, there is an element of artificiality in this further question. Further, as Jean McConville stated in her evidence that she had never seen another referral protocol which referred to "use own clinical judgement" in relation to SFH measurements during her long practice in Scotland, there may have been limited scope for the development of a normal or usual practice over time. However, I shall briefly set out my view on this aspect of the case.

[55] I do accept Jean McConville's evidence that a 3cm discrepancy in SFH is a standard marker taught to midwives as raising a concern. Her opinion is supported by *Myles Textbook for Midwives* (15th Edition at p276). Dr Ferguson also remarked that the 3cm criteria had been part of her medical training. I have no doubt that a midwife of ordinary competence should be alert to the fact that a 3cm discrepancy is a concern which requires further action. But beyond that, the evidence did not indicate to me that there is a usual and standard practice within the midwifery profession on the approach to SFH discrepancies. Some health boards use single measurements while others use growth charts which can be individualised for the

mother. Reference was made by Dr Ferguson to concerns if certain centile lines were crossed. The Intergrowth study in 2016 identified SFH as a helpful marker for a problem while leaving the response to individual countries to determine. Other options could include repeated measurement to monitor the SFH profile overtime. The evidence before me did not indicate that - absent any direction from a protocol - standard midwifery practice required a midwife to make a referral for an ultrasound scan in response to a single measurement disclosing a 3cm discrepancy. As the use of ultrasound scans involves resourcing issues for the relevant health board, it is both understandable and acceptable that different health boards could choose to adopt different criteria for identifying when a woman should be referred. If, contrary to my conclusions at paras [41]-[43] above) midwife Bannerman did exercise clinical judgement that an ultrasound scan was not necessary, she is supported in her conclusion by Professor Sanders and Dr Ferguson. These experts support her clinical judgement on the basis that a single measurement of 37cm at 40 weeks indicates a fetus which is within the normal range, and that the reduced SFH measurement could be explained by the head engagement. The evidence of a high number of false positives where a 3cm discrepancy is used as the criteria for referral, would also suggest that a midwife who concludes that an ultrasound is not necessary will often be proved right. For these reasons, I have been unable to conclude that there was a normal and standard practice which midwife Bannerman failed to follow when she decided that a growth scan referral was not indicated.

[56] The pursuer also made a submission with reference to *Bolitho* v *City & Hackney Health Authority* 1998 AC 232 that I should conclude that, even if there was a responsible body of midwives who would not have referred the pursuer for a scan in these circumstances, such a failure to refer was illogical and could not be justified. However, this argument also faces a

number of the difficulties noted in the preceding paragraph. Where it is legitimate to adopt different criteria to determine when scanning resources should be deployed, it is difficult to fault as wholly illogical a clinical judgement that a healthy patient with a single risk factor should not be scanned. Of course, in retrospect that can be seen as the wrong decision, but when the matter is looked at prospectively, it cannot be said that midwife Bannerman's clinical judgement, if she truly exercised it, was devoid of all logic.

Disposal

[57] I find the defenders liable to make reparation to the pursuer in respect of the injuries sustained by Maisie at birth, and direct that a proof is fixed for the assessment of quantum. I shall repel the 1st-4th pleas-in-law for the defenders. I shall reserve the question of expenses meantime.