Editorial note: Certain information has been redacted from this judgment in compliance with the law.

REPUBLIC OF SOUTH AFRICA

IN THE HIGH COURT OF SOUTH AFRICA
GAUTENG LOCAL DIVISION, JOHANNESBURG

CASE NO: 28516/16

(1) REPORTABLE: YES / NO
(2) OF INTEREST TO OTHER JUDGES: YES/NO
(3) REVISED.

……………………… DATE ………………………… SIGNATURE

In the matter between:

I K obo K K Plaintiff

and

THE MEC FOR HEALTH, GAUTENG PROVINCE Defendant

J U D G M E N T

VAN DER LINDE, J:

Introduction

[1] This is an action in which a mother sues the defendant on behalf of her firstborn son, K, for him (and her) having suffered damages as a result of

his having been born with cerebral palsy. After some initial uncertainty, the parties agreed and I ordered in terms of rule 33(4) that all issues arising between them on the pleadings, except causative negligence, be stayed.

[2] When the case was opened, the parties handed bundles that were subject to proof. They agreed that only the medical records contained in items 4, 5, 6, 7, 9 and 10 of exhibit "E" (pages 7 – 81; 83 – 161) are what they purport to be, but not that their contents were true. For the rest, there was no agreement as to the status of the bundles although, as will appear shortly, at the end of the plaintiff's case this was resolved.

[3] It was also agreed between the parties that only documents referred to in the *viva voce* evidence would form part of the record before the court. This is not unimportant since the documents that were ultimately by agreement placed before the court were substantially more voluminous than those to which reference was made in the *viva voce* evidence.

[4] The plaintiff's case was built on the *viva voce* evidence of herself, Dr Kara, a paediatrician, Ms Fletcher, an expert in advanced midwifery, and Dr Ebrahim, an obstetrician and gynaecologist.

[5] At the end of the plaintiff's case Mr McKelvey, who acted for her, recorded without objection that the parties had agreed exhibit "A2", a document headed "Admissions" and containing three admissions; that the reports at exhibit "B item 4" (Ms Fletcher), "B item 5" (Dr Kara) and "B item 7" (Dr Ebrahim) were to be considered properly proved; that they had further agreed exhibit "B item 1"; exhibit "D item 2" (joint minute of gynaecologists) and "D item 3" (joint minute of paediatricians); and that

the following pages in exhibit "E" were accepted as being true (thus further than they had previously agreed in respect of this exhibit): 10, 11, 12, 17, 41, 46, 66 to 69, 91 to 110. During the course of the plaintiff's evidence extracts from the textbook of Prof Volpe were received as exhibit B1, pages 1 to 10.

[6] The defendant's case comprised of Dr Modise who is the clinical manager at the Jubilee Hospital where the plaintiff's baby was born and who was called as a factual witness; Sister Beauty Ntjana, an advanced midwife who has diplomas in Nursing and Midwifery, and who was the sister that delivered the plaintiff's baby; Sister Kalibbala, also an advanced midwife and who came on duty on the morning of 8 January 2013 at 07:00 after the baby was born at 04:50 on that morning; Dr Koll, a specialist obstetrician and gynaecologist; Professor Cooper, a paediatrician with neonatology as a sub-speciality; and finally Dr Zikalala, a paediatrician who attended on baby K upon his readmission to the Jubilee Hospital on the afternoon of 10 January 2013.

[7] Finally, by way still of introduction, the broad factual outline and the issues that arise in this case may be recorded. On 7 January 2017 the plaintiff went to a clinic because she was experiencing pains consistent with approaching labour, and her water had broken. Her blood pressure was recorded as being high and so she was referred to the Jubilee Hospital for the birth. She was admitted to the Jubilee Hospital later that evening where her blood pressure was recorded as still being high.

[8] She was taken into a ward where her vital signs and those of her foetus were monitored. Her baby was born the next morning, 8 January 2013 at 04:50.

[9] The focal point of the evidence of the plaintiff was the lack of proper monitoring of the foetal heart rate ("FHR"). Her case was that between 02:30 and 04:40 on 8 January 2013 the FHR was not monitored and recorded every half an hour as it should have been.

[10] The hospital records concerning the condition of the baby upon birth reflect that he was normal. His so-called Apgar scores (an acronym for appearance, pulse, grimace, activity and respiration, a generally accepted measure of the physical condition of a newborn infant, in which a score of ten is the highest) were 8/10 after one minute and 10/10 after five minutes.

[11] Also, the assessment of the baby at a more comprehensive level in the document headed "First examination of neonate" (exhibit E page 28) showed that all his responses were normal. According to the hospital records he was put on breastfeeding at 09:30 on his first day of life, and was feeding well. It seemed accepted all round among the experts that these records, if true, were inconsistent with a pre-delivery insult of the kind that would have led to the cerebral palsy that had occurred here.

[12] The plaintiff and baby K stayed in the hospital for the rest of 8 January 2013 and also on the next day, 9 January 2013, until the afternoon after 14:30 when the plaintiff and the baby were discharged. The baby spent the evening of 9 January 2013 with the plaintiff and her mother and shared their bed that night.

[13] The next day, 10 January 2013, at around 13:00 the baby presented with what the plaintiff called "*bubbling*" at the mouth and making strange, cycling movements with his arms. This was interpreted by the experts for the plaintiff as representing convulsions. Whatever it was, the plaintiff and her mother arranged to be taken back to the hospital where in the course of the late afternoon or early evening the baby was readmitted.

[14] Upon readmission his temperature was recorded as being 45°C, a level which the experts described as being incompatible with life, and a pulse rate of 229 bpm. Dr Zikalala recorded too that the baby was fitting and said that she treated that condition.

[15] Some preliminary assessments were made concerning his condition, including that he had meningitis; but in later days he was diagnosed with having suffered an acute profound hypoxic ischaemic encephalopathy ("HIE"). This diagnosis is common cause, and also that this has led to the cerebral palsy.

[16] The parties are therefore agreed that the baby suffered an acute profound HIE and consequently cerebral palsy. The issue between them is whether the insult that caused this had occurred before the birth, as the plaintiff contended, or whether this had occurred after the birth, as the defendant contended. The defendant contended also that even if the HIE had occurred before birth, there is no sufficient evidence, if any, to show that the resultant cerebral palsy could have been avoided.

[17] I now deal with the evidence of the witnesses to whom I have referred, in so far as it is relevant to the issues to which I have referred.

The plaintiff

[18] The plaintiff is 25 years old not employed, and a level 4 scholar with ABET. She fell pregnant in 2012 while still at school and attended the new Eersterus Clinic. It was her first pregnancy. When at the end of her term she was about to give birth she went to the Refentse Clinic. She started experiencing birth pains at about 16:00 on 7 January 2013 and at around 18:00 her water broke. She then went to the clinic at about 21:00 with her mother and her aunt.

[19] Her blood pressure was taken and was found to be high. She was told she could not give birth at the clinic given her high blood pressure and had to go to the Jubilee Hospital. She was given a yellow pill but she did not know what it was for. I interpose to point out that Dr Koll later said in cross-examination that it appeared that she was given medication for high blood pressure at the clinic and that any further medication for high blood pressure at Jubilee Hospital before the delivery of her boy was contra-indicated.

[20] She arrived at the Jubilee Hospital at about 23:30 and was taken to the labour ward. She was checked in and her blood pressure again taken and other examinations relating to the progress of the birth process were done. She was asked to lie on her left-hand side and a belt was put around her stomach which she understood would be used to check the FHR.

[21] She says that she was checked from time to time by the nurse who would check the readings of the belt that had been put around her, her

blood pressure, and would perform vaginal testing. At around 03:00 on 8 January 2013 the belt around her was removed – implying that it was not re-attached - and she was told to go to the next room; she says she walked there. In that room she waited for a while and a sister came who did vaginal tests and who called another sister. Together they started telling her to push.

[22] One of them pushed her stomach and the other one was at her feet supervising the birth process. The baby was then born at 04:50. She saw him; he did not open his eyes nor did he cry. He was taken away; she does not know where. She was then stitched up and at around 07:00 a doctor and a student nurse visited her. They checked her and told her to go to the toilet to urinate. She came back, and says that she fainted.

[23] She was then taken to the maternity ward. The baby was only brought to her later that day at 14:00. She said he was a quiet baby. She fed him. He suckled *"a little bit"* (her description) and fell asleep. She fed him later on the same day and again he suckled "*a little bit*" and fell asleep. She said she could not say how much he suckled. He woke up at night and again he suckled and fell asleep again.

[24] She said he started *"giving problems"* the next morning before 08:00 when he woke up; he started crying and did not want to be breastfed. She thought she noticed a small wound under his tongue and asked a student nurse about it and about him crying nonstop. The student nurse sent her to a qualified nurse who looked at the baby and said there was no problem with him. They were discharged later that day at 14:30 and

left at 15:00. She said the baby was then crying nonstop and did not want to feed.

[25] When she got home the baby would cry, then be quiet, then cry again, and this went on through the night. She said she wanted to feed him but he would not suckle. At about 13:00 the next day he was making "*bubbles*" around his mouth and strange movements with his arms.

[26] The plaintiff and their mother arranged transport and at around 16:30 on 10 January 2013 the baby was readmitted to the Jubilee Hospital. There he stayed until 23 January 2013. There was initial uncertainty about the diagnosis; she was told that he had meningitis but another doctor said that he had birth asphyxia.

[27] The baby is now 5½ years old, but cannot talk nor walk. His head appears loose on his shoulders and he cannot feed himself.

[28] Cross-examined, she said that the nursing staff treated her well at the clinic and on arrival at the Jubilee Hospital her blood pressure as checked. She accepted that she could not give birth with the belt on her body and so it was removed prior to birth. It was put to her that Sister Ntjana says the belt was removed at 04:40 and she disputed this saying it was removed at 03:00. It was put to her that in his report Dr Kara said that the baby sucked well and that he could only have obtained this information from the plaintiff; but she insisted that the baby only suckled "*a little bit*".

[29] Later in her cross-examination when paragraph 2.3 at exhibit "B" page 28 of Dr Kara's report was put to her, where he said that in the afternoon the baby looked well and "*sucked well*", she agreed with the proposition

that he sucked well but said that this was only for a short space of time. She said that when she arrived home with the baby after discharge from the hospital in the afternoon of 9 January 2013 the baby did not then make the strange movements with his arms.

[30] As to when she first breastfed the baby, which according to the hospital records was 09:30 on the 8th, she persisted that this was untrue, and that she only did this at about 14:00 on that day. She also said that at birth there were two sisters and not only one assisting her.

[31] In conclusion, regarding the plaintiff's evidence, I should record that generally she made a favourable impression. I got the distinct impression that she was completely honest, and trying to be as accurate as she could. Having said that, I am not persuaded that she gave reliable evidence as to the extent to which her baby cried. When she brought the crying to the nurse's attention, she was apparently assured that the crying was not out of the ordinary. This was her first baby, and she would likely have been over-anxious about him; the nurse would have seen many.

Dr Yetish Kara

[32] The witness has been practicing as a paediatrician for 22 years. He confirmed his expert report (exhibit B, item 5). In preparation for his report, he had studied the medical records, the plaintiff's health card, the maternity case records (but not the neonatal records); and had interviewed the plaintiff and examined baby K. He received the neonatal records only on 10 August 2018, but these did not change his opinion.

He engaged also with Prof Cooper for the defendant; he thought he may have seen Prof Cooper's initial report, but was certain that he saw his addendum report.

[33] It was common cause that baby K suffered from cerebral palsy. He explained that cerebral palsy is an insult to the developing brain, leading to a non-progressive injury. It leads to impairment of the motor function and varies from gross to fine. Speech and cognitive function may also be impaired but not necessarily intellectual function.

[34] Baby K presented with dyskinetic cerebral palsy, meaning abnormal movements. He was stiff, with brisk reflexes. He also presented with microcephaly, meaning although his head was normal sized at birth, it was now small.

[35] In his view the cause of the cerebral palsy was HIE, and this was confirmed by the objective evidence presented later by the MRI scan. The medical narrative of 10 January 2013 is consistent with HIE. His temperature is there recorded as being 45°C, so high that it is inconsistent with life. No measures were taken to reduce it.

[36] Yet the baby presented with blue legs, and that is inconsistent with a baby who is feverish. In his view the temperature of 45°C is thus an inaccurate recordal. The recordal at exhibit E page 110 that the baby was lethargic, groaning and foaming is consistent with encephalopathy.

[37] The initial assessment was either broncho-pneumonia, meningitis, or sepsis. This was reasonable. But tellingly the plan did not include lowering the temperature of the baby. The recordal at 21:30 on exhibit E page 109 of "cycling movements" reflect a subtle convulsion. When the

laboratory results came, these reflected that he was dehydrated, and also a significant kidney injury. But they did not reflect an overwhelming infection, and the spinal puncture confirmed no evidence of meningitis.

[38] The search for the cause of the injury thus went back to earlier in time. There was no evidence up to 7 January 2018 to support the injury. The baby's condition was good then. So it was common cause that there was no insult before labour on 7 January 2013, and yet by 10 January 2013 the injury had occurred. In the witness' opinion the injury occurred before delivery, and not only after delivery, at home, as Prof Cooper contended.

[39] There was only evidence of hypertension and grade I meconium. This could occur if the foetus is compromised, but it could also be normal. The plaintiff's blood pressure at 21:00 on 7 January 2013 (exhibit E page 41) was high – 172/98 and 190/100 at 21:30. This was not mild. But an obstetrician, not a paediatrician such as he was, should opine on this.

[40] As to delivery of the baby: there was no record of the monitoring of the FHR after 03:00 on 7 January 2013. It should have been done every 30 minutes. The last record was 02:30. The dyskinetic cerebral palsy suggests that the injury occurred during labour.

[41] The witness said that if the FHR reflected distress in the last 30 minutes before birth, there was little that could be done then. Contractions of the mother usually means no oxygen to the baby. The longer the contractions, the longer the baby is without oxygen. In the normal course this is no problem as the baby recovers completely. But it is the total cut off of blood to the baby that causes the injury.

[42] As labour progresses, the contractions are longer, the oxygen deprivation is longer, and the foetal recovery less each time. Birth then relieves the deprivation. Sub-acute hypoxia is detected by monitoring the FHR. If the heart fails, it cannot pump blood to the brain. The lack of circulation (ischemia) at that time is actually more important than the lack of oxygen.

[43] In this case, there was no singular, sentinel event. There was a slow building up of a deficit and then a sudden acute profound injury to the foetus. But it is not possible to say when the final injury actually occurred. The baby's Apgar scores at birth were good, militating against an injury having occurred by then. But Apgar scores are subjective (exhibit E page 29). And the baby was given oxygen at birth, a point of concern. That places a question over the validity of the Apgar scores. The bloods done on 10 January 2013 support the conclusion of renal injury.

[44] In the witness' view, an injured baby would have needed oxygen, would have an abnormal muscle tone, would not cry, and would have convulsions. He would have expected a floppy baby. He therefore is critical of the Apgar scores. An injured baby can be treated within six hours of birth, and this could minimise on-going damage.

[45] Convulsions would normally exhibit within the first six hours. But if the injury is HIE, then it usually presents within the first three days. Convulsions are not always visible, because they may be occurring in the brain. A jittery baby may not necessarily be having convulsions.

[46] The Apgar scores here do not point to an intrapartum event. The first examination of the neonate appears normal, suggesting nothing happened intrapartum. And the witness accepted that if the first examination of the neonate as reflected at exhibit E page 28 ("First examination of neonate") is correct, then his opinion is wrong.

[47] The witness relied on Prof Joseph J Volpe, Professor Emeritus of Harvard Medical School and editor in chief of Volpe's Neurology of the Newborn, sixth edition (there are six editors), an acknowledged doyen in this field, for the proposition that to conclude that an acute profound HIE had occurred, one needs evidence of foetal compromise, an overt neurological event, within the first 24 hours of life. In the previous edition of his book, he apparently said "days", not 24 hours.

[48] An extract of this text book was received as exhibit B1 pages 1 – 10. This was comprised of the cover page of the text book, and pages 283 – 292, and pages 512 – 514. At page 514 the authors write:

"With regard to the most severe form of neonatal encephalopathy, occurring in 20% of HIE, a clear evolution has been documented. Although the temporal evolution of the neurological syndrome is more complex in the infant undergoing therapeutic hypothermia because of sedation and response to hypothermia, the principles remain unchanged.

In the first six hours after the insult, signs of presumed bilateral cerebral hemispheral disturbance predominate. The severely affected infant is either deeply stuporous or in coma (i.e. not arousable and minimal or no

response to sensory input). Periodic breathing, or respiratory irregularity akin to this pattern, is prominent…

Clinical seizure-like activity often occurs by 6 to 12 hours after birth in approximately 50% to 60% of the infants who ultimately have seizures. A major challenge occurs in the correct clinical recognition of seizures."

[49] There was no monitoring here of the baby in the first 24 hours of life; but the baby not crying and sucking poorly are evidence of such overt events, signifying the presence of a neurological event having occurred. There is no evidence of an injury having occurred after birth; there is no evidence of an injury having occurred before labour; and therefore inferentially the highest risk period during which the injury occurred, was in labour.

[50] There was no assessment of the crying of which the mother complained. The witnesses had recorded in his report that the baby's sucking was reported by the mother to have been good, ostensibly in conflict with his evidence that one would expect the baby's sucking to have been poor if a HIE event had occurred before birth. But the witness explained that it is possible that the sucking was good initially and thereafter became poor – that does not exclude his thesis of an intrapartum insult.

[51] The witness could not say whether it was appropriate to have discharged the mother and baby when they were discharged. The mother said that the baby cried a lot on 9 January 2013, and that there was a sore under his tongue.

[52] The witness said that the signs of bubbling that the mother reported, and the cycling movements, were signs of HIE worsening after 24 hours of life. On readmission on 10 January 2013, the signs of HIE were clear.

[53] As to whether baby K's injury could have occurred after birth, the witness said such events are inclined to occur with premature babies, not term babies, as baby K. There would have to have been some catastrophic event, so catastrophic that the baby would have required resuscitation. Such events are prevalent in babies with respiratory or cardiac problems.

[54] Had such an event occurred and had no-one been present to assist the baby, the baby would have died; he would not have been able to right himself. Yet even by 10 January 2013, there was no record of resuscitation, and so the injury must have occurred before delivery.

[55] On exhibit E page 42 there was a recordal in the medical records of 3+ caput and a call to a doctor to assess it; but no record of any assessment having been done. And yet the partogram says there is no caput, reflecting poorly on the accuracy of the partogram. There is also record of the baby being fed, but that could have been a reference to a feed being given, and not a breast feed, said the witness.

[56] The fact that HIE was only diagnosed three days later is no problem for the diagnosis of that condition. The MRI scan does not time the occurrence of the injury. Generally when one refers to an HIE injury, the default position is that it occurred intrapartum. The investigations at exhibit E pages 103, 104 are perfectly reasonable, but there is no suggestion that the injury had occurred after birth. There is reference to

a “flat” baby, and this is inconsistent with a high Apgar score. At exhibit E page 103 the records of 16 January 2013 create the impression of HIE; at exhibit E page 102 there is reference to HIE stage II. See also exhibit E pages 101 and 93.

[57] The diagnosis of “birth asphyxia” means the injury had occurred during labour. Prof Cooper initially said that the injury had occurred on 15 January 2013. The witness (Dr Kara) accepted that he could not say precisely when the injury had occurred, but opined that it was likely after 02:30 on the morning of 7 January 2013. The Apgar score is inconsistent with the mother’s evidence and with the doctor’s observations a few days after birth, i.e. that of a “flat” baby. The witness said that in his view there is an 80% probability that the injury was caused by foetal distress.

[58] Cross-examined, he said that if the recordal of the FHR up to 02:30 was correct, then the injury occurred between 02:30 and 04:50 (when the baby was born). To assess foetal distress, one needs to know what the FHR is. Although the nurse recorded “absence of foetal distress” she had no record of the FHR during those hours. But he agreed that the records show that the FHR was present and was not distressed. He agreed too that if the nurse was correct, that would undermine his opinion.

[59] He accepted that dyskinetic cerebral palsy could occur after delivery. A damaged placenta too could contribute to an acute profound injury, and here no placenta histology was done. Nor could he say whether one should have been done. An injury could have occurred in a drowning incident. In a child, the brain is more resistant to injury from convulsions.

[60] It was put to him that Prof Cooper said that the injuries were caused by the convulsions, but the witness could not say whether this was so. He did not consider the convulsions as a cause of the injury, because the MRI scan reflected HIE. It does not reflect a stroke, or a bleed, or an infection. The issue is whether the convulsions were there before or after the HIE. There is no evidence of what caused the convulsions. It must have been the HIE.

[61] He thought the convulsions exceptionally unlikely as a probable cause; Prof Cooper however considered that they were the cause. One could suggest a category of time when the injury occurred. In his view, the injury occurred during labour, because of the type of cerebral palsy; the inaccurate Apgar scores; and the MRI scan. He said Prof Cooper did not consider these aspects.

[62] He accepted that there was no description of a "flat" baby immediately after birth. This description only came later. He considered that there was no evidence of the foetal well-being between 02:30 and 04:50, and yet the guidelines require that the FHR is to be checked every 30 minutes. But he conceded that this topic was best discussed by an obstetrician.

[63] Even if exhibit E page 24 is accepted as correct – that there was no foetal distress – his views would not change, because the nurse did not record the FHR during the critical time.

[64] It was put to the witness that the usual features of an injury before birth are a low Apgar score; resuscitation to initiate breathing; inability to suck; an incubated baby; a recordal that the baby was not well; and delayed

immunisation of the baby. He agreed but said that immunisation is delayed till discharge. He accepted that it was improbable that the baby would have been discharged the following day, as he was, if he was injured.

[65] The witness said that the six hour period after birth was a window during which one could influence the consequences caused by HIE. Also, if the injury occurred during the two hours before birth, the consequences of the injury could be reversed. The witness accepted that this baby did not present the usual picture of injury before delivery, and that there were inconsistencies.

[66] It was put to him that Prof Cooper would say that oxygen could be administered to a baby with cyanosis, and he accepted it. But he said this is done to resuscitate a baby. He accepted that a good Apgar score militates against his conclusion, as did the evidence that he baby sucked well. He persisted in saying that the administering of oxygen is unusual if everything is normal, irrespective of the colour of the baby.

[67] He queried the Apgar scores because the mother said that the baby did not cry but gave a grimaced response. That is inconsistent with a healthy cry. He accepted that he was told by the mother that the baby sucked well, and that he did not query that.

Ms Fletcher

[68] The plaintiff's next witness was Ms Fletcher, an expert midwife. In her view the care and management of the mother and baby were suboptimal. This applied to the foetal condition during labour. There was no monitoring after 03:00; the monitoring of labour was substandard.

[69] The plaintiff's treatment at the clinic before her hospitalisation was appropriate. She had hypertension and extremely high blood pressure. That is why she was referred to the hospital for delivery of the baby. At that stage the FHR was normal at 128. High blood pressure of the mother can lead to seizures and placenta rupture, which could result in diminished blood flow to the baby. If that occurs, oxygen supply is compromised, causing foetal distress.

[70] The FHR at exhibit E page 42 was recorded as 158 bpm. This was still within normal bounds. When the mother contracts, the FHR goes up or down; but it should remain more or less within the same baseline. Also present were meconium stains, higher grade I; this can be a sign of distress. The nurse must therefore monitor the FHR diligently.

[71] The reference to "3+ caput" is a reference to fluid which is formed at the top of the baby's head when the head is pressed down into the cervix. There is then pressure on the baby's head and the "3+" means it was quite noticeable. The measurement can be subjective.

[72] She said that when one is concerned about oxygen supply to the foetus, one might ask the mother to lie on her left hand side. It is believed that blood flow to the uterus is thereby improved. It is done as an intra-uterine resuscitation. The remark "for doctor to assess" was very appropriate, given the high blood pressure of the plaintiff. She was not given any medication for her blood pressure.

[73] The plaintiff was already in active labour at the clinic, at 4cm dilation. At the hospital it was 6cm. There are three stages of labour. The first stage is divided into a latent phase and an active phase. The latent phase

commences when there is a suspicion of contractions, and the cervix starts to dilate. This phase covers zero dilation to 4 cm dilation. The active phase covers 4 cm dilation to 10 cm dilation. Contractions are more frequent in this period. During this, the active phase, the FHR must be monitored every 30 min.

[74] The second stage of labour is when the cervix is 10 cm dilated, and the mother feels the urge to push. In the third stage of labour the baby is delivered and so too the placenta.

[75] The plaintiff was high-risk because of her high blood pressure. She should have had CTG (cardiotechnograph) monitoring continuously. Her uterine contractions should also have been checked every 30 minutes.

[76] The CTG monitoring is done by placing a belt around the abdomen; it picks up the FHR. A second belt is placed around the abdomen, lower down, to monitor the contractions. The FHR is monitored both before and after contractions, so as to pick up the variability and decelerations, especially after contractions. If it drops more than 15 bpm and does not recover quickly, then blood flow and thus oxygen supply to the foetus are reduced.

[77] In this case the FHR was measured not before but only after contractions. No decelerations are recorded, and since there was no monitoring before contractions, one cannot see if there was variability. The liquor was unstained by meconium. Her blood pressure was high. If the liquor was meconium stained, we would indicate this with “m”. If blood stained, “B/S” would be used; if blood and meconium, “B/M”.

[78] Meconium, evidence of the baby having passed stool in the uterus, is a sign of distress. At 03:00 the plaintiff was only 9 cm dilated. This crossed the alert line, and the witness would have called the doctor. If the nurse was an advanced midwife, she could herself have done a vaginal examination to see what the progress was; it would not have been necessary under those circumstances to have called the doctor. But the crossing of the alert line is concerning.

[79] The witness regarded the blood pressure as being very high. It was recorded hourly and at 03:00 it was 200/100. But the recordal stops at 03:00. As to the plaintiff's evidence that she was moved: it could be that she was in ante-room and then moved to the labour room. But even if she was, she should have been monitored there on the same basis as before.

[80] The reasons why the witness considered that the monitoring was substandard were the absence of a CTG record, and no record of the FHR monitoring after 03:00.

[81] She did not understand the reference to resuscitation at exhibit E page 24, and would want to know why the Apgar scores do not indicate the need for this. The placenta was recorded as normal. The perineum was not intact, and had to be sutured.

[82] Cross-examined, she said that the failure to record the FHR was the problem as she saw it. She agreed that not recording something did not mean that it was not in fact done. But in her profession, what has not been recorded has not been done. She accepted that non-recordal occurs especially in over-crowded public hospitals.

[83] It was put to her that Sister Ntjana who completed the partogram was in charge; she was an advanced midwife and was assisted by other midwives. She was using a CTG to monitor the FHR. It did not have tracking paper, but she observed the FHR on the screen. It was put to her that if, given the number of patients one had to monitor, a nurse in Sister Ntjana's position had to choose between recording the FHR and attending to other patients who needed attention, she would choose the latter duty; and Ms Fletcher agreed.

[84] It was put to her that Sister Ntjana would say that in fact she checked the FHR and was satisfied that it was normal. But she did not record it because there were too many other things she had to attend to. It was put to her that if at 03:30 the FHR was normal at 128 bpm (within the baseline range of 110 – 160 bpm), then if at say 04:00 there were no contractions, the FHR would likely be within the same range. Her response was that the FHR would change, even if not dramatically. But one could not predict what it would be.

[85] She was asked whether a dramatic change in FHR was triggered by contractions, but she said not by any large degree. She confirmed that at 02:30 the FHR was 128 bpm (exhibit B p19, 2.7.45). It was put to her with reference to exhibit B p19, 2.7.49 that at 04:00 there were no decelerations and no FHR recorded, and that all was fine at that time; and she agreed.

[86] She was asked whether it was still necessary to call the doctor for the plaintiff's high blood pressure if the foetal condition at 04:00 was normal. Ms Fletcher responded by saying that the doctor may have resolved to

accelerate the labour, because as soon as the baby is borne, the blood pressure drops.

[87] With reference to the foetal condition at 04:40 as reflected on exhibit E page 24, she confirmed that one could not say that there was no foetal distress without checking the FHR. It was put to her that the FHR could be checked with a CTG or with a stethoscope, and she agreed that that was a reasonable proposition.

[88] With reference to the witness' contention (see partogram at exhibit E page 48) that meconium indicated that the baby was stressed, it was put to her that Sister Ntjana says that she did in fact not observe any meconium. She responded that once meconium is present, it does not go away. She accepted that meconium is not necessarily a sign of foetal distress. She accepted that oxygen after birth could be used to address cyanosis. She accepted that an advanced midwife was sufficiently trained to cut open the perineum.

[89] The hospital records of 8 January 2013 at exhibit E page 25, were put to her, indicating that breast feeding was initiated at 09:30; and that exhibit E page 24 confirmed this. She accepted it.

[90] The witness said that the FHR was required to be monitored before, during and after every contraction; and that after 03:00 the FHR had to be monitored every 30 minutes. It was put to her that exhibit E page 24 reflected that when the plaintiff was already in the second stage of labour the FHR was present and showed no distress. She accepted that it was so indicated.

[91] She insisted though that although a FHR of say 158 bpm was within the ostensibly acceptable range, the baseline in this case may have been 140 bpm; and in that event 158 bpm indicated a problem. She was taken to exhibit B 19, 2.7.33 and 2.7.41, reflecting that the FHR remained the same despite contractions; and she accepted that it could remain the same. She accepted that a midwife could check the FHR and contractions at the same time.

[92] With reference to exhibit E page 48 and the entry at 01:00 reflecting B/N, it was put to her that the "N" did not reflect the presence of meconium. She was referred to exhibit B page 65 for the proposition that Dr Ebrahim also read the "N" as not reflecting the presence of meconium. It was put to her that there was no indication that the baby was not breathing at birth; if he did not breathe then, this would have necessitated resuscitation; and she accepted this.

[93] The witness said that usually the mother would be lying on her back at birth; the baby would be shown to the mother immediately; and she will hear the baby cry when the baby has been delivered. The hospital record at exhibit E pages 24, 25 was put to her, which indicated that the baby was fed at 09:30, yet the mother denied that she fed the baby then. The witness said that usually the baby is put with the mother immediately for 5 – 10 minutes. It is not normal for a baby to be fed only after 24 hours of birth. The baby needs energy, blood glucose.

[94] With reference to exhibit B page 22, 2.14.9 she said that the post-natal advice included immunisation in the future. She confirmed that the plaintiff was put on a drip at the clinic for the high blood pressure, and

also later at the hospital. She expected that the drip would have remained in situ at birth. There was no record of when it was removed. It was put to her that the plaintiff in fact remained on the drip; the witness agreed, but said that it was not for the high blood pressure. It was various ingredients including lactate.

[95] It was put to her that when the baby was readmitted there was no recordal of a history of convulsions having occurred at home; but the witness said that she did not have access to the notes concerning the baby on readmission. She confirmed with reference to exhibit E page 48 that the FHR must be checked every 30 minutes in the active phase of labour, when the mother is dilated 4 cm and greater.

[96] She accepted that the FHR was checked at 02:30. It was put to her that it was again recorded at 03:00 though not recorded. She accepted that since according to exhibit E page 24 the FHR was present at 04:40, it must have been checked then.

[97] It was put to her that Sister Ntjana then concluded that there was no foetal distress, and the witness accepted it. It was put to her that it followed that even if Sister Ntjana missed checking the FHR between 03:00 and 04:40 that would accordingly be an irrelevance. The witness did not accept the proposition. It depended on the baseline. But the witness accepted that Sister Ntjana could justifiably breathe a sigh of relief if the FHR was 128bpm.

[98] In re-examination she said that the reference at exhibit B page 19, 2.7.45 to the FHR as being 128 was an error.

<u>Dr Ebrahim</u>

[99] The plaintiff's next witness was Dr Ebrahim, an obstetrician and gynaecologist, also in private practice at St Augustine's Hospital in Durban, as Dr Kara. He had consulted with the plaintiff and had studied the clinical obstetrics records. In his opinion the ante-natal care of the plaintiff was no cause for concern. He agreed a joint minute with Dr Koll.

[100] He explained that high blood pressure was a risk factor, because it indicated constricted blood vessels and thus reduced oxygen supply to the foetus. In the normal course one would not see FHR aberrations as a result of uterine contractions. But in his view the high blood pressure and the presence of meconium made this a high risk case. Healthy foetuses would cope with it though. It was a matter of degree: first compromise, then hypoxia, and only thereafter followed distress. In his opinion, the plaintiff's pre-eclampsia caused the foetal hypoxia.

[101] Pre-eclampsia occurred in 5 – 10% of pregnancies and was not a common occurrence. It requires appropriate management and monitoring. Protein in the urine – such as the plaintiff had – exacerbates the pre-eclampsia. But it also depends on how high the blood pressure is. Pre-eclampsia occurs as a result of dysfunction in the placenta. Generally a young healthy girl carrying her first baby will not have high blood pressure. The high blood pressure thus raises a suspicion of pre-eclampsia. Pre-eclampsia is treated by delivery of the placenta.

[102] If this baby was born in nature, the probability of cerebral palsy was higher than in the case where pre-eclampsia was not present. The baby's growth was normal at birth. A CTG records the FHR on paper. Because of limited resources, a CTG can be moved from patient to

patient. A hand-held device is also available which amplifies the FHR, known as a doptone. Meconium staining of the liquor (“MSL”) presents as a greenish discolouration as distinct from the usual rice waterish colour. The presence of MSL and pre-eclampsia warranted greater attention to this foetus. It was a high-risk pregnancy, requiring monitoring by means of a CTG, not a stethoscope.

[103] There are in fact no clear guidelines on the monitoring frequency of FHR. But in situations other than normal, continuous monitoring is required. In a low-risk pregnancy, it can be done every hour with the CTG, and with a stethoscope in-between. The witness recorded in his report that monitoring occurred here until 03:00, but said that this was obviously incorrect, and should have been 02:30.

[104] The end of the first stage of labour was 04:40, and the end of the second stage at 04:50. That means there was no monitoring for the last two hours or so. The way the monitoring is done, is to listen to the FHR for about one minute before and after a contraction. That is the only way one knows whether the contractions were well-tolerated by the foetus. In fact, the partogram prompts it.

[105] The normal FHR is 15 beats over a 15 second period. The record of the FHR that presents in this case, does not tell one whether the baby was healthy or not. The FHR was also not correctly plotted here. The decelerations are plotted every hour, yet the FHR is taken every 30 minutes.

[106] As to the proposition that the absence of recordal of the FHR was justified by the fact that it was within the accepted range, the witness

opined that if the FHR was monitored correctly, the range can be relied upon. But that is not a valid approach if the monitoring was not done correctly. In this case there was no monitoring before and after the contractions.

[107] As to the proposition that a CTG was used but that there was no paper for it, the witness said that a labour ward should have paper for the CTG. If this is not available, the mother and child are left to the mercy of inappropriate monitoring. The nurse should then record the FHR as she observes it on the CTG.

[108] The FHR changes during labour, as it is a dynamic process. The form at exhibit E page 50 can only be completed with CTG paper if the nurse sits with the mother and measures and records what she observes. The last hours of labour is when the stress sets in if the sources are depleted. The pushing down of the head also puts pressure on the oxygen supply to the foetus. The conclusion in bold at exhibit B page 68, is that the FHR monitoring was sub-standard.

[109] In the witness' view foetal distress occurred as a matter of probability. The witness relies on the diagnosis of Dr Kara that HIE had occurred because of a lack of oxygen to the brain. According to exhibit E page 49 the blood pressure went up to 200/100; in the witness' view this was extremely high, and the plaintiff had fairly significant, moderate-severe eclampsia. He disagreed with Dr Koll's assessment of "mild". In his view a blood pressure of 140/100 is in the upper region of mild. And this was much higher.

[110] The plaintiff's problem with protein in the urine was also significant. And no treatment was given to lower the blood pressure. She was put on a drip to make sure she did not become dehydrated. The drip also likely contained painkillers and sedation. She was given HCTZ on 10 January 2013 for her blood pressure, as also Adalat and Lasix. None of this was given to her prior to birth. Further, at exhibit E page 41 she is recorded as being prescribed Methyldopa, medication to reduce high blood pressure.

[111] In her drip before birth was lactate, salts and potassium. This medication kicks in over hours rather than minutes. Lowering blood pressure too quickly is not good for the foetus. In the witness' view, this was a reasonable measure to deal with her high blood pressure.

[112] Concerning the Apgar scores referenced at exhibit B page 68, the witness deferred to Dr Kara. But he said that one would not expect oxygen to be given to a baby with good Apgar scores. Oxygen could be given in the first minute if respiration hasn't started.

[113] In this case the plaintiff said the baby was crying all the time the next day (second day of life, 9 January 2013), and it continued at home. A new-born crying all the time, is atypical. But the witness said that he did not believe there was any misjudgement on the part of the nurse. His science is to say if the monitoring could have missed something. So he starts by accepting what the paediatricians have found and then works backwards. Here there was no sentinel event. His opinion is captured at exhibit B page 70 in italics, and over the page, pages 71, 72.

[114] Cross-examined, he said that he was present during part of Dr Kara's evidence. They work together at the same hospital, see each other often, and are social friends. They discussed this case.

[115] He accepted that according to exhibit B page 66 it was recorded that the baby was able to suck at 09:30. He accepted that according to exhibit E page 25, the second entry, the hospital staff were happy with the condition of the baby. He accepted that a compromised baby does not suck normally. He accepted that oxygen could be given for cyanosis, a blue-ish baby. It is also given for resuscitation.

[116] With reference to his opinion at exhibit B page 70, it was put to him that this was dependent on there having been foetal distress in the last two hours. He said that it was partly so. The absence of monitoring does not cause HIE; HIE is the diagnosis of Dr Kara which he accepted. He understood Dr Kara to be saying that there must have been foetal distress in the last two hours before birth. His own opinion can only assist if in fact there was foetal distress then.

[117] With reference to the joint paediatricians' minute at exhibit D item 3 page 11 and the recordal that here was no FHR recorded for two hours and twenty minutes between 02:30 and 04:50, he said that one could not say there was no foetal distress unless one will have monitored the FHR. It was put to him that the way in which the top block on exhibit E page 24 was completed, signified that the author must have observed the absence of foetal distress. He disputed this conclusion, saying that one could not check the FHR once and then conclude that there was no foetal distress. Foetal distress was not a moment in time.

[118] With reference to exhibit N page 8 Recommendation 8, he opined that the partogram should be completed contemporaneously. It was put to him that at crowded public hospitals nurses function under pressure and that they are not also able to record everything that they in fact perform. He explained that King Edward the Fifth Hospital, there was one nurse for every two patients in the labour ward; in a private hospital, there was one nurse for every one patient.

[119] It was put to him that Sister Ntjana had almost ten patients on the shift in question. It would be her evidence that failure to record did not equate to failure to perform. He said in a private hospital, every patient was monitored with a CTG from beginning to end. With reference to exhibit B page 67, he said that he was satisfied that the plaintiff was in fact monitored with a CTG.

[120] This was the plaintiff's last witness. Before her case was closed, the agreements regarding the exhibits to which reference is made at the outset of this judgment, were recorded.

The defendant's case

[121] The defendant's handed up legible copies of Prof Cooper's report at exhibit C, pages 12 – 18. Its first witness was Dr Olebogeng Modise, called as a factual witness.

Dr Olebogeng Modise

[122] He is the clinical manager at the Jubilee Hospital. He qualified as a doctor at Medunsa in 1999. He explained that exhibit N was a manual for clinics, community health centres, and district hospitals. He explained that the Jubilee Hospital was a full blown hospital, with a 24/7 maternity

cum obstetric ward. He read exhibit N page 36. He explained that the shifts at Jubilee Hospital were 12 hours, and that there was one midwife for every eight to ten patients.

[123] He explained that they encourage staff members to adhere to requirements for recording observations. But it is not practical to adhere to them all, especially a requirement such as one that reads: “enter all observations”. So the staff would concentrate on monitoring, and not necessarily on recording. The focus is on the well-being of the baby. Inevitably there is information that is missing.

[124] He is familiar with the adage that what is not written down has not been done. But he said that in the public sector the ratio of health care professionals to patients makes it impractical. There the professionals concentrate on monitoring rather than on recording. The latter is not always practical.

[125] He ascribes the over-population at Jubilee Hospital to the fact that it is located on the border of four provinces. It services district hospitals, and 32 clinics. Of these clinics, two function on a 24/7 basis, but still they have no doctor.

[126] Cross-examined, he said they did not have student nurses. The maternity patients are seen to by midwives and advanced midwives. Jubilee Hospital has 551 beds and units other than the maternity unit. A nurse may record maternal vital signs, but one needs training and experience to record a foetal condition. The witness did not know the ratio of nurses to patients.

[127] He said that this nurse (Sister Ntjana) delivered five babies in a 12 hour shift on the day in question. He accepted that the recordal of observations was important, particularly when things go wrong. He accepted what was put to him, namely that because of inadequate recordal one does not know what happened here, at least not completely.

Sister Beauty Ntjana

[128] This was the defendant's next witness, and she delivered the plaintiff's baby. The witness has a diploma in nursing and a diploma in midwifery. She was trained at Bophuthatswana Nursing College in 1988 and as an advanced midwife in 2012 at George Mokhari Hospital. She has since retired.

[129] When baby K was born on 8 January 2013 she was employed at the maternity ward of Jubilee Hospital. She completed the information at exhibit E page 42, under "Clinical nores". The FHR was 158 bpm and the plaintiff's blood pressure 190/100. The plaintiff was Gravida 1, meaning she was coming in for her first delivery.

[130] A CTG or foetal scope was used. She was asked to lie on her back. The CTG straps were put around where the baby's heart beat was most prominent. The CTG records the FHR and gives a reading. The scope is used by placing the one end against one's ear to hear the FHR. No-one else attended on the plaintiff.

[131] The witness did not know who had recorded E41. It was put to her that the nurse at the clinic had recorded MSL grade 1 and she accepted it. With reference to exhibit E page 42 she was asked whether she

observed MSL at 23:40, but said she did not observe it. She recognised exhibit E page 48. She explained that it was filled in at 21:00 before the plaintiff arrived.

[132] The witness recorded only at 23:00 when she checked on the plaintiff. She found blood stains in the liquor and recorded that as BS. She did not record MSL because she did not observe this. She entered BN at 01:00 but could not explain what the "N" signified. She thought it was a mistake. Exhibit E page 24 reflected the summary of the labour. It is her handwriting and she completed it until the 3rd stage of labour. The person who completed the 4th stage of labour was Sister Kalibbala who is still employed at Jubilee Hospital.

[133] The information recorded at 04:40 was actually completed at 04:40. Her signature appears next to "delivered by". This was completed at the time of delivery. She had written "foetal heart rate present" when the baby was delivered. She had also entered, "Foetal distress: No" after the child was delivered. It is a summary of the labour process. She did not observe foetal stress during delivery. That is why she entered "No". She was referred to the partogram at exhibit E page 48 and confirmed that it reflected the active and latent phase of labour.

[134] She confirmed that the guidelines cover the intervals during which the FHR was to be checked, and confirmed that it had to be done "after 30 minutes". When she received the patient at 23:40 she was already in the active phase of labour. She was taken to where she had plotted the FHR on the partogram, and confirmed having done so at 23:30, 00:00, 01:00,

01:30, 02:00, and 02:30. She said that she also checked the FHR after 03:00 but said that she did not get time to record it.

[135] She explained that there was a patient delivering twins at 01:15. At 02:20 she was delivering the second twin, in what she called "a bridge presentation." This is when the baby's buttocks come out first. Her involvement with this mother is why she did not record the FHR after 03:30.

[136] She could not say how many patients were allocated to her on that shift, but she delivered five woman and six babies (one with twins) on that shift, baby K included. She was asked what the Maternal Guidelines require of her, and she said they require of her to check whether the patient has pain; her vital signs; whether she was emptying her bladder; and how far the mouth of her uterus was open. She was asked to read from exhibit N page 36 down to "foetal condition". She said the guidelines require of her to record the FHR on the partogram, exhibit E page 48. She said she did not plot the FHR but she checked it.

[137] She said she completed "time of delivery" on exhibit E page 24. It was 04:50. With reference to exhibit E page 48 she said that she last recorded the FHR at 02:00. (This appears to be a mistake, because it is recorded at 02:30). She explained that her name is recorded at the 4th stage of delivery at exhibit E page 24, because before the plaintiff delivered, she opened the way with scissors. And later stitched her up again.

[138] The reference to "breast feeding initiated" at exhibit E page 25 was recorded by Sister Kalibbala. The witness was then already off duty.

Exhibit E page 25 was completed on 8 January 2013. The baby was recorded as being pink, and that satisfied the professions. With reference to exhibit E page 42 she confirmed that the plaintiff was on a drip, which was still on at 04:50. She confirmed that this patient had the CTG on her, and this is what she used when she checked the FHR.

[139] The CTG had no tracing paper and thus reflected only the figures. She regretted the absence of the tracing paper because now will agree that in fact she did check the FHR.

[140] She was taken to the Apgar scores on exhibit E page 29. She confirmed that she had provided the information. Oxygen was administered because when the baby was delivered, he was extremely blue. Oxygen is then given to boost the colour of his skin. There were three sisters who were doing deliveries on that shift. Each had her own patients. She was not helped with baby K.

[141] Cross-examined, she confirmed that she did not know the plaintiff; she was just another patient. She said she must have delivered “a million” babies since then. She accepted that she had no independent recollection of the events and relied on the records provided to her by Dr Modise. She also consulted a book at the hospital the day before she testified, and it reflected how many babies she delivered that night.

[142] She came on duty at 19:00 on 7 January 2013. Baby K was delivered in ten minutes. There were three midwives and one nurse assistant on duty. She examined the plaintiff at 23:40 for the first time, as reflected on exhibit E page 42. She recorded the blood pressure as 190/100 and the caput as 3+. She recorded that the doctor was to assess this. It was put

to her that it was not recorded that in fact a doctor had assessed the situation. She accepted that the plaintiff was in fact not assessed.

[143] She agreed that the plaintiff was told to lie on her side. This was to increase blood flow to the baby. It was put to her that that procedure is called intrauterine resuscitation. She responded that every patient is asked to lie on her side so that the baby's heart can beat properly. She agreed that there was no record of a CTG having been used. It was used only to monitor the FHR. It had no tracing paper.

[144] She completed the partogram at exhibit E page 48, and agreed that the last recorded assessment of labour appear at 03:00. She insisted that the liquor was blood stained, but that there was no meconium. She did not observe meconium. She agreed that if there was meconium at 01:00 it would have been a concern.

[145] With reference to exhibit E page 42 and the 3+ caput entry, and the entries at 11:00, 01:30 and 03:00 reflecting caput at nil, could not remember why those entries were made. She accepted that the caput could not disappear. She said that they were required to see more patients than they could manage. Later she said that the "nil" at 01:00 was correct - there was no caput. The initial three crosses indicating a material caput was entered by the clinic, not by anyone at the Jubilee Hospital.

[146] She was asked about the crosses and circles in recording the FHR on the partogram and explained that the latter signifies before pain and the former after pain. Pain referred to contraction. It was put to her that the

FHR after contractions were then not known. She accepted that she could not say what the FHR was during the period 02:30 and 04:40.

[147] With reference to exhibit E page 24 she was taken to the absence of an entry after "assisted by...". She said that no-one assisted her and she does not know why the plaintiff said that there was a person who pressed down on her abdomen. She said this was not done.

[148] She insisted that the FHR was present, and that she observed no foetal distress. She did not see distress on the CTG machine. She said that before one delivers a baby, one would again listen to the FHR. Exhibit E page 47 was not completed because the information there required is the same as the information already on the partogram. And there is no time to complete it. She said that they worked "not with paper but with lives".

[149] She agreed that the CTG was removed by around 03:00, if the patient was taken from one bed to another. She agreed that she also monitored stage three of labour, which commences when the baby is delivered and ends when the placenta is delivered. She agreed that she administered oxytocin at 04:54. The method of delivery of the placenta was "active". This is described at exhibit N page 41. She agreed with it. It lasts for ten minutes, and then the fourth stage begins. She examined the vagina for further tears and then repaired the episiotomy.

[150] With reference to exhibit E page 24 she was asked how she monitored the foetal condition in the second stage. She explained that when one checks the patient to see if she is fully dilated, one also checks the FHR before the mother delivers. This is done with the CTG machine. If the

FHR goes below 100 bpm, that indicates foetal distress. If it beats above 110 bpm, there is no distress. She last checked the FHR before the baby was delivered. She did not take the CTG off. She accepts that it could have happened when the patient was moved to another room.

[151] The CTG has a sound which warns when the baby is in distress. Its normal position is that it makes a sound reflecting the FHR in normal mode. It also sounds differently when it is above 160 bpm or too low. She said that she heard the sound of the FHR all the time, also when the plaintiff went to the delivery room. But while she was delivering the twins, she could not leave them and go monitor the FHR of baby K. She denied that anyone assisted her when she delivered baby K. Had there been anyone, this would have been entered under “Summary of labour”.

[152] She insisted that the baby cried at birth, despite it being put that the plaintiff said he did not. She said she would not have shown him to the mother if he did not cry, because then the baby is not fine; and under those conditions she would not have shown him to the mother. She accepted that the record does not show for how long he was given oxygen. But if a baby’s legs and arms are blue, he is given oxygen with a mask. If a baby does not cry at birth, he is wiped, he gets stimulated, and then gives a cry. Oxygen is not given to have the baby cry. She would not have given oxygen if the baby did not cry.

[153] She agreed that blue arms and legs are not uncommon, but if a baby cries, there is no need for oxygen. But she gave the baby oxygen because of the Apgar score: the response to stimulation was 1. Thus the cry was not such as to make the baby pink in the first minute of life. It

was put to her that there was a contradiction in the Apgar scores, because he scored 2 for a good cry, and yet only 1 for stimulation? She explained that when a child is born and gives a normal cry, and finishes crying, and then keeps quiet; then after wiping and stimulating the child, the child would cry normally.

[154] She explained that one assesses the child in the first minute of life to see how he responds. Then one writes down the Apgar scores. Then one sees after 5 minutes how the child has scored and one enters that. The child is with one at the bed where the mother will have delivered the baby. The baby is then taken away, wiped, injected, given vit K, and put in an incubator until one is done with the mother. It was put to her that at 04:54 she was injecting the mother with oxytocin and delivering the placenta, and so could not have been busy with the child. But she said the nursing sisters would take the child away.

[155] In re-examination she was taken to E28, and the entry at “first examination of neonate”, under “cry”, reflecting “normal.” She insisted that the child came out normal, and that she did not observe any foetal distress. She left the child with the mother, who breast-fed him. If the child was not fine, he would not have sucked. If the FHR goes out of bounds, there is an alarm on the CTG and a flashing heart.

<u>Sister Kalibbala</u>

[156] She was the defendant’s next witness. She qualified as a midwife in 1975 and was registered as such in 1979. She qualified as an advanced midwife in 2012. She is employed at Jubilee Hospital. Exhibit E page 25, the second paragraph, is her handwriting. She came on duty at 07:00

that morning. She completed the second paragraph. The information was given to her by the patient while talking to her. She directed the patient what to do. She also completed exhibit E page 24, the fourth stage.

[157] After 09:30 she post-checked the plaintiff, and told her to breast-feed the baby. She thereafter took the baby away. She took the plaintiff’s blood pressure, and asked her to go to the bathroom to see if she could pass urine.

[158] Cross-examined, she explained that the fourth stage of labour commences after delivery of the placenta, for an hour, as reflected on exhibit N page 41. She agreed. With reference to exhibit E page 24, she said that she made the fourth stage entry at 09:30, 4,5 hours after delivery of the placenta. It was pointed out to her that she had entered, “perineum intact”, and she conceded that it was an error. Asked why she did not pick up the error, she said that she had, which is why she entered that Sister Ntjana attended the perineum.

[159] She was asked how she arrived at the blood loss having been 350ml. She said it was an estimate, based on the pads the plaintiff had used. She was in the labour ward where the plaintiff had delivered the baby. When she came back from the toilet she went back to her bed. One makes sure she is fine, and thereafter she is transferred to the post-natal ward. That is reflected on the last entry on exhibit E page 25. It was put to her that the plaintiff said that she had fainted, but she said that she did not see that happen. Had she observed such an event, she would have put her on the bed to see what had caused it.

[160] She did not accept that the baby was only brought to the plaintiff at 14:00. She said that the plaintiff was no longer in the labour ward then; and that if the baby is not sick, he is not taken away from the mother. She insisted that the baby was with the mother.

Dr Koll

[161] Peter Charles Kool, a specialist obstetrician and gynaecologist, was the defendant's next witness. He practices at Sandton Medi-Clinic. He proved his report at exhibit C page 63. He did not have sight of Dr Ebrahim's report at that time; only later. He said a partogram is a visual recordal of the birth. With reference to exhibit E page 48 at 01:00, he could not interpret the "B/N" and took it to be "B/S". He was taken to exhibit C pages 69, 70, and 71. He said that the FHR is very seldom recorded during the second stage of labour. But the professional staff must listen to it, and this is drummed into them in their training.

[162] He explained that the FHR could be monitored with a dopler in one's hand and then not be recorded, because one is wearing sterile gloves. Then it is seldom if ever recorded. With reference to exhibit N page 36 he agreed that in those circumstances the FHR still has to be recorded, but he insisted that it is not practical to do so, and it never is. He gave his opinion and comment with reference to exhibit C page 74.

[163] He agreed with the first part of the last paragraph on exhibit B page 68. But he was not present when the plaintiff testified, and there was no record of a change in condition of the baby the next morning. He explained that there was a small overlap in the field of science of the paediatrician and obstetrician. The baby's condition the next morning is

in the field of the neonatologist. Exhibit C page 16 of Prof Cooper was put to him, but he said it was not his field of expertise. It was put to him that Dr Kara had accepted the conclusion at the foot of exhibit C page 16; he said the “early neonatal period” probably refers to the first 24 hours, but said it was not his field of expertise.

[164] With reference to exhibit D item 2, the joint minute, page 3 paragraph 11, he said that if the midwife is under pressure then to follow the guidelines, recording must yield to monitoring.

[165] Cross-examined, he said that exhibit E page 41 was the assessment at the clinic before admission to the hospital. She had hypertension, and was pre-eclampsic. He regarded her as being a moderate risk. Anything could go wrong. A primigravate is allowed to deliver at a clinic; that is not a risk factor.

[166] FHR should be listened to before, during and after contractions. It is not adequate to listen to it only before contractions. The most important time is to listen to it after contractions, and alone it is sufficient. The late decelerations that one worries about are those after contractions. It is a worry if it decelerates down to 80 bpm. Within the band of 120/160 bpm is acceptable. One needs an electric monitor to monitor variability. It cannot be done with intermittent auscultation. If the FHR is below 110 bpm or above 160 bpm, an electronic monitor is required.

[167] A single reading within the normal range with a low risk patient is fine. Even with a high-risk patient, intermittent monitoring remains the mainstay of monitoring. He did not accept that a single reading is meaningless in a high-risk patient. With reference to exhibit E page 42,

he said that caput on its own without a delayed progress is not an issue. There is an intra-observer variation in caput values. But caput cannot disappear (exhibit E page 48). He agreed that a doctor should have assessed this. It would surprise one if no assessment was done.

[168] The usual reason for requiring the patient to lie on her left-hand side is if there is some concern about the FHR. It forms part of intrauterine resuscitation. “B/M” could signify meconium. “B/S” liquor is very common. Even meconium is; in 30% plus of all labours. It could be ominous is it was associated with other indicators.

[169] He accepted that since there was no recording after 02:30 the condition of the foetus then was unknown. With reference to exhibit C page 69 at the end of the second paragraph: he accepted that the recordal was not in accordance with the guidelines. In his report he was initially focused on outcomes, and the baby was a healthy baby. If he ignored the outcome, he would have said that the recordal was substandard care.

[170] If the plaintiff was not monitored at all after 03:00, that would be massively substandard care. With reference to exhibit E page 48, he explained that labour must progress at one cm dilation an hour. The first line is the alert line. The second line is the action line. If the labour crosses the alert line, it is not of significance. She would have stayed below the alert line during that period until delivery.

[171] He accepted that the nurses needed to be more vigilant since the FHR was not recorded. If labour slows down, that is not necessarily evidence of a problem, but one has to be alert. If the dilation stuck at nine cm, that would have been an issue. Not otherwise. Exhibit E page 49 reflects

that the blood pressure remained moderately high. But treatment is contra-indicated provided the diastolic remained at around 100 (the lower of the two values in a blood pressure measure). He accepted that both recordkeeping and clinical assessment are needed. He agreed that in retrospect Sister Ntjana should have made a note afterwards of the FHR during the period she could not do contemporaneous recording.

[172] He did not accept that in South Africa the most common ground for foetal brain injury is lack of monitoring. He said that monitoring has only been done in the past ten years. The reason for monitoring is for the early intervention to prevent brain injury. Brain injury could also be caused by misinterpretation of CTGs. With reference to exhibit E page 24, he said that many babies have blue extremities. He said oxygen is almost universally given; old habits die hard. It is routine to improve extremities.

[173] He accepted that the baby was sucking after birth. He did not want to say whether with HIE sucking would be impaired as it was outside of his filed.

[174] Re-examined, he accepted that the guidelines do not make provision for recording afterwards, but said it should have been done. He also said that he has never seen recording of FHR during the second stage of labour. He could not say when they will have started non-recording, but it would have been with the onset of the second stage of labour and full-on dilation; when the second stage was imminent.

[175] Cross-examined further, he said with reference to exhibit E page 24 that the mother was not fully dilated at 04:40. He said monitoring is upped

before full dilation. The second phase can last for two hours. It can take that long for the head to descend. On exhibit E page 48 there is no space to monitor after every contraction. The last recording here was at 03:00, when she was still at nine cm.

[176] With reference to exhibit E page 24 it was not recorded when she was prepared for delivery. Delivery is when monitoring is increased, not recording. The nurses cannot record at that stage, because they are scrubbed and gowned.

<u>Prof Cooper</u>

[177] He was the defendant’s next witness. He is a retired paediatrician, with neonatology as a sub-speciality. He practised for 35 years. He explained that if between 10 – 45 minutes before delivery a foetus experiences a complete lack of oxygen, this can result in complete brain damage. There is a cooling period of about six hours after birth; if a baby was asphyxiated and the baby is then cooled in the first six hours, it may have a positive effect. Here the baby was not cooled. And in any event, cooling was only introduced at around the period when this baby was born.

[178] But in any event, cooling would only be considered if there were obvious signs of damage, such that the baby would have to be resuscitated: the baby does not feed, there are convulsions, such-like obvious clinical presentations. With reference to exhibit E page 29, the witness said that the Apgar scores were not in keeping with a hypoxic event during birth or thereafter. Exhibit E page 28 reflects that everything about the baby was normal. Cooling was not indicated.

[179] The witness proved his report at exhibit C page 12, dated 13 February 2018. His opinion is at p16. The baby's birth weight was right up at the mean. Oxygen was indicated, because the baby had blue limbs. This is a function of the absence of oxygen in the red cells.

[180] Importantly, the witness stressed (exhibit C page 16, 17): *"It is almost universally accepted that a neonatal neurological syndrome, usually referred to as neonatal encephalopathy, must be present in the early neonatal period if an intrapartum insult is to be linked to later neurological handicap. In his textbook Neurology of the Newborn, Volpe, who is widely regarded as the world expert on neonatal neurology, states: 'The occurrence of neonatal neurological syndrome, indeed, is a sine qua non for attributing subsequent brain injury to intrapartum insult.'"*

[181] He described the *"early neonatal period"* as being within six hours of birth. He said that Dr Kara accepted this. The witness stressed his conclusion at exhibit C page 18. The witness initially considered that a convulsion had occurred at around 15 January 2013, but when he wrote his opinion he had not seen the readmission records.

[182] He has since seen those, and they changed his opinion: clearly, the baby's neurological status was already abnormal on 10 January 2013. He now concludes that the insult must have occurred on 10 January 2013, as reflected in his addendum report dated 9 August 2018, exhibit C1, pages 1 to 3. He proved the joint minutes with Dr Kara, at exhibit D page 5, dated 23 February 2013. The points of agreement are 1 – 8. He

explained that the MRI scan can suggest an injury having occurred at any time from around birth to a month afterwards.

[183] The witness opined that in his view it was virtually impossible for the injury to have occurred during labour and delivery. If the insult occurred during the 10 – 40 minutes before delivery, during labour, it could not have gone unnoticed. It would have reflected in the child after birth. The checklist at exhibit E page 28 is against this. The baby was well ten hours after birth.

[184] The signs of such an insult are not subtle; they are obvious even to a lay person. Breast-feeding, sucking and swallowing are complex manoeuvres; a baby with hypoxic encephalopathy cannot perform these.

[185] Cross-examined, he accepted that an acute profound hypoxic ischaemic brain injury are actually two injuries. It takes about ten minutes for brain cells to start dying. Before the injury gets to the part of the brain where the cells start dying, the baby has a shutting down mechanism. But there is no such shutting down with an acute profound injury. A complete lack of sucking reflex is related to the extent of such an injury.

[186] It was put to the witness that the plaintiff said that the baby sucked for a while and then stopped. He did not suck that afternoon nor that evening, and that the baby did not want to feed the next day. The witness said it would be of concern, but if there are feeding problems the nursing staff can detect very quickly if there is a problem with sucking and swallowing.

[187] It was put to the witness that the baby was crying incessantly the next morning. He said that it was difficult to comment; and that the nursing staff would know whether it was out of the ordinary. But in his view the

normal Apgar sores and the normal feeding exclude a preceding event. It was put to him that Dr Kara said that a baby could appear normal initially, and then develop signs of injury. The witness said that that applied to milder forms of injury; not as in the present case where the injury is an acute profound one. In this case the signs of injury would be present.

[188] With reference to exhibit B1 pages 1 – 10 (the extract of Volpe's textbook), the witness referred to B10, and said that this was a more severe case of insult. He confirmed that he had examined the child. He accepted that some of the information reflected on the ticked form exhibit E page 28 required an active assessment, such as the reflexes. With reference to exhibit E page 29, he saw no contradiction between the good crying record and the poor response to stimulation. He said that if the mother's pre-eclampsia had been going on for some time, one might have seen some growth restriction. If hypertension only manifests as labour starts, that would be too late to affect the placenta.

[189] He agreed that pre-eclampsia was an accepted risk factor, but it depended on whether hypertension was detected before labour. Here it was not, and so it was not a risk factor. He agreed that Apgar scores are subjective.

[190] He said that the early neonatal period is particularly the first six hours of life. If the injury manifests only after twelve hours, then the problem is probably caused by something else. If it was caused in labour or delivery, there is a 95% chance that it would have manifested within the first six hours, and a 99% chance that it would have manifested within

the first twelve hours. Neonatal encephalopathy which is mild does not result in cerebral palsy, if the insult is not already evident as within that time frame.

[191] The witness accepted that on readmission on 10 January 2013 the neurological condition of the baby was abnormal. At exhibit E page 110 a number of issues were raised and excluded. According to exhibit E page 109, at 21:30 the baby had a fit, and the fits then continued. The baby subsequently recovered. With reference to exhibit E page 93, where the diagnosis on readmission was birth asphyxia, the witness said that he did not know on what that was based.

[192] The temperature of 45°C at exhibit E page 110 is inconsistent with life. There is no other explanation but that the baby was overheated. That results in apnia (stopping of breathing) for an extended period of time. It is not at all due to birth asphyxia. There is no explicit action plan to treat the high temperature or the high pulse (229 bpm), but the witness assumes these were treated, because the temperature came down.

[193] In his opinion that insult occurred on 10 January 2013 before the child was admitted to hospital. It was put to the witness that the plaintiff said that the baby cried incessantly on the day of discharge; thereafter the whole time at home, intermittently; and on 10 January at 13:00 formed bubbles around the mouth and made cycling movements with the arms. The witness said that these signs may have indicated convulsions. The foaming at the mouth may have indicated problems with swallowing.

[194] It was put to him that the baby was making strange sounds when he was taken back to hospital, but the witness found it difficult to comment on

this. He said though that convulsions were probably indicated. From what was put to him, he said the baby sounded extremely ill, and neurologically dysfunctional.

[195] He accepted that if these signs were evident by 13:00 on the day of admission (10 January 2013), their cause must have existed before 13:00. He was asked to ignore exhibit E pages 28, 29 and to suggest a cause. He said that the baby was well enough to be immunised and discharged and that HIE – even if moderate – could not be missed. He considered that something must have happened early on 10 January 2013.

[196] He was asked what his opinion would be if he were to assume that HIE was in fact missed. He said that he still remained unpersuaded that his opinion was wrong, and that the signs of injury still manifested too late to signify an injury which occurred during labour or at birth. The hypoxia and ischemia would have had to have occurred on 10 January 2013 to have caused the signs; also the apnia. Hypoxia results in depression of the heart function, causing ischemia. This could have been caused by an obstruction to the breathing of the baby.

[197] It was put to him that Dr Kara opined that for a post-delivery insult to have caused this injury, one needed a catastrophic collapse of the baby; and the witness agreed. He agreed too with Dr Kara that in such event, without resuscitation, the baby would have died.

Dr Nonthlanthla Zikalala

[198] The defendant's final witness was Dr Zikalala, a paediatrician who qualified in 2007 and was employed at the George Makesi Hospital in

Garankua. At the time she was working at the Jubilee Hospital. She attended the plaintiff on 10 January 2013 on readmission. She completed exhibit E page 110 and recorded that the baby had difficulty in breathing and sever (check) for one day. She recorded that he was foaming.

[199] It was put to her that the plaintiff said that the baby had convulsions at 13:00, but the witness said no such history was given to her. She said that nasal flaring and convulsions were two different things. With reference to exhibit E page 109 she explained that she was called because the baby was fitting. She stopped the convulsions then. An initial diagnosis was meningitis. Fitting could be a sign of this.

[200] She said the high creatinine levels were because the baby was not feeding enough. The information on exhibit E page 110 that the baby had difficulty breathing was obtained from the mother. Exhibit E page 91 was completed by the sister working in casuals. The history of a two day old baby is taken down from the mother.

[201] Cross-examined, the witness said with reference to exhibit E page 91 that oxygen saturation of 98% was normal. With reference to exhibit E page 110 she confirmed that she admitted the baby. She was asked whether “CNS – jittery” indicated a sign of convulsion, but she said they were two different things. When a baby is jittery the child’s hand stops when one touches it, and that it what happened here.

[202] With reference to exhibit E page 110 she did not recall whether it was she that got the history from the mother or a sister. But whoever got it, tries to record exactly what the mother says. She started treating the

baby for meningitis. At exhibit E page 109 she indicated that a microscopy had to be done in the morning. The high creatinine could be a function of dehydration, but could have been an abnormality at birth.

[203] That was the defendant's case. The parties both provided helpful written heads of argument and closing oral submissions, for which I am grateful. I provide only the briefest summary of their full submissions.

The plaintiff's submissions

[204] Plaintiff's counsel confirmed that exhibits M 1.12, 1.18 and 1.19 formed part of the record by agreement between the parties. He submitted that the event causing the baby's injury is unlikely to have occurred from 14:00 on 8 January 2013 until discharge at around 16:30 on 9 January 2013. He submitted that the experts agreed that if it was an event post-delivery, it would have required active resuscitation – and that there was no evidence of this after birth.

[205] He submitted that if it happened at any time from birth to 14:00 on 8 January 2013, it is unlikely that the baby would have been taken to the mother. It followed, according to the submission, that it must have happened between 23:40 on 7 January 2013 and 04:50 on 8 January 2013.

[206] He submitted that the evidence of Sister Ntjana had to be rejected. The Apgar scores and exhibit E page 28 could not be correct, because she was busy with the plaintiff and could not pay attention to the baby. In response to the question whether the Apgar scores and the exhibit E page 28 checklist were then dishonestly completely, counsel's response was that he went no further than to raise suspicion. He submitted that

the court had to find that Sister Ntjana did not in fact monitor the FHR as she says she did, and that that was pure reconstruction.

[207] Counsel high-lighted the difference between Dr Kara and Prof Cooper, the former saying that the injury could have been obscured whereas the latter said it must have been evident, even to a lay person.

[208] Counsel submitted in conclusion:

"The substandard care and treatment of the attending hospital staff resulted in probable foetal hypoxia (distress) not being detected. The attending nursing staff, by their failure to properly monitoring the Plaintiff and her unborn baby, incapacitated themselves to effectively and appropriately intervene to prevent the foetal hypoxia and resultant brain damage. Their substandard care and treatment resulted in the neurological insult to the baby's brain (hypoxic ischemic brain injury) that led to the baby's cerebral palsy."

The defendant's submissions

[209] Counsel for the defendant relied on Sister's Ntjana's evidence. He submitted that she monitored the FHR both before and after contractions. He submitted that she said that there was no way in which one could deliver a baby without knowing the FHR.

[210] He criticized the plaintiff, submitting that she was dishonest. He submitted that she was told to say that the CTG was taken off her at 03:00 because that version fits with what her experts would testify. She told them too that the baby had breathing problems on readmission, but she did not testify to this effect.

[211] Counsel submitted that non-recordal of the FHR is excusable in over-crowded public hospitals. Sister Ntjana sacrificed recording but not monitoring. She observed the child before completing the Apgar scores and the exhibit E page 28 checklist.

[212] Counsel submitted that in any event no causative negligence has been shown. He submitted that the last paragraph on exhibit C page 16 of Prof Cooper's opinion was accepted by Dr Kara; and that resulted in nothing being left of the plaintiff's case: there were good Apgar scores; the baby was not resuscitated; the baby was not incubated; and he sucked well (he was breast-feeding at 09:30 according to Sister Kalibbala on exhibit E page 25). The plaintiff said the baby was only brought to her for feeding at 14:00, but this is so improbable that it can be rejected, according to the argument. The baby needed nourishment.

[213] Counsel submitted that Dr Kara's opinion that the injury occurred in the last two hours before birth, is inconsistent with these records. Added to this must be Prof Cooper's opinion that if the baby was delivered with an insult already having occurred, then it is impossible that he would have sucked well at 09:30.

[214] Counsel was critical of the collaboration between Dr Kara and Dr Ebrahim. They discussed the case; the one needs the conclusion of the other; and Dr Ebrahim was present when Dr Kara testified. Dr Kara only looked at the convulsions as a symptom. But the convulsions could have caused the injury, and counsel submitted that Dr Kara conceded that.

[215] But he cottoned onto Dr Ebrahim that here must have been sub-standard care in the last two hours before birth. Prof Cooper considered

but excluded this on the basis of how the baby presented after birth. Counsel submitted that Prof Cooper was a more objective witness. Dr Kara said initially (exhibit E page 24) that breast feeding was initiated but later said it was other feeding. But on exhibit E page 25 breast feeding is ticked.

[216] Counsel submitted that the injury could have been caused by convulsions at home. Ultimately counsel submitted that the event of birth as the cause of the cerebral palsy was excluded by Prof Cooper's opinion and Dr Kara's acceptance of it, reliant of Prof Volpe's passage in his work. It was also submitted that the high temperature could have been a cause of the injury.

Discussion

[217] It seems to me that there are two critical issues in this case. The first is whether the event that caused baby K's injury – whatever it was - ought to have been observed by the defendant' staff, and the second is whether – had it been observed by the defendant's staff – the defendant's staff could have prevented the event resulting in baby K's injury occurring.

[218] Before the discussion progresses, it is necessary for the correct perspective to remind oneself that the mere fact that baby K is burdened with an injury does not make the staff of the defendant's hospital causally negligent. A plaintiff is still burdened with having to prove on a balance of probabilities what actually happened; that the staff should

have picked it up; and that the staff could have prevented the consequences of the event.[1]

[219] As to the yardstick by which the conduct of the defendant's staff is gauged, the law expects of them to act in accordance with a notional standard set by a reasonable professional with their experience and qualification in their circumstances.[2]

[220] Something also needs to be said about experts, particularly in a case such as this where the result is likely to be dependent on the acceptability or otherwise of their opinions. Their function is to assist the court, not the parties. In a sense, therefore, they are not part of the accusatorial paradigm of the legal representatives of the parties.

[221] They have no duty to advance the best case they can for their side, as do lawyers. Instead, they have a duty to the court to provide their opinions honestly, objectively and reasoned; and to explain their reasons to the court in clear and understandable language, so as to enable the court, as best it can, to decide whose reasons are the more persuasive.

[222] Experts have, for instance, no place expressing views as to what is negligent and what is not. That is the function of the court. If expert express their own views as to what is negligent and what not, they confuse their own function and they obscure from the court the legitimacy of their own objective reasoning, making it all the more difficult for a court to adopt their reasoning.[3]

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[1] Minister of Safety and Security v Van Duivenboden 2002(3) All SA 741 (SCA); 2002(6) SA 431 (SCA) para 12.

[2] Goliath v MEC for Health, Eastern Cape [2014] ZASCA 182; 2015 (2) SA 97 (SCA) para 8.

[3] See generally, Twine and Another v Naidoo and Another (38940/14) [2017] ZAGPJHC 288; [2018] 1 All SA 297 (GJ) (16 October 2017).

[223] Similarly, experts have no place expressing views on what is or is not a conclusion on a balance of probabilities. That is a legal concept that is used by court to determine a factual result where there are factual conflicts. It is a function the remit of which is that of the court, not that of the witness. The court's ability to discharge that function, and the lawyers' duty to assist the court in that regard, comes from years of training and a particular attitude to judging witnesses' evidence.

[224] Specifically, it involves assessing credibility, reliability and probability together, in a particular way, a topic which has enjoyed attention in many judgments in courts of first instance and in appellate courts, and academic theses. A medical specialist is not qualified or called upon to engage in that endeavour. Her/his function is as I have set out above.

[225] With these preliminary remarks out of way, I can now turn to assessing the relevant evidence and expert opinions, given the two issues to which I have referred at the outset of this section.

[226] If the departure point is that the baby has an injury, and since the evidence as to when and how it occurred is if not neutral then at least inconclusive, therefore the mother must win, then the judicial system collapses. More is required, in our system of civil liability: s/he who alleges, must prove.

[227] In this matter the first occasion during which this specific insult, an acute profound HIE, could have occurred, was during the window of two hours and ten minutes - 02:30 to 04:40 - on the 7th: no-one suggests that any earlier time has any prior claim. And the plaintiff's witnesses do not suggest either that any FHR other that one outside of the band of 110 –

160 bpm, or other than one outside of a post-contraction rate greater than 15 bpm than the pre-contraction rate, had any potential of alerting the defendant's staff that the foetus was being stressed.

[228] As a matter of probability, the first of these two scenarios (the FHR extending beyond the baseline range) may be discounted: the CTG has an alarm that would have alerted Sister Ntjana to a potential problem, and as a matter of probability, no matter how busy she was, no matter whether she was independently checking the FHR every half hour, it is more likely than not that the alarm would have alerted her.

[229] What if the CTG was, as the plaintiff testified, no longer strapped to the plaintiff during those crucial two hours and ten minutes? Then the question whether the FHR was monitored at all during that period arises, and the direct *viva voce* evidence of Sister Ntjana comes into play.

[230] I have substantial doubt as to whether the FHR was monitored at all during the period 02:30 to 04:40, for these reasons. First, I prefer, generally, the plaintiff's evidence to that of Sister Ntjana on this issue. I have already referred to the fact that the plaintiff generally made a good impression. There is the added fact that this was her first baby and, as a matter of probability, she the events are more likely to be imprinted in her mind than in the mind of Sister Ntjana.

[231] The plaintiff said that the CTG was taken off her at around 03:00 and not again attached, when she was asked to walk to a different room. Sister Ntjana was uncertain about whether the plaintiff was in fact asked to move from one room to another. She insisted though that the CTG would have went with her. How she would have remembered that fact is not

clear to me. Her evidence was largely if not exclusively based on contemporaneous records, understandably so. And this fact, the moving of the plaintiff and the de-attaching and re-attaching of the CTG is nowhere recorded, either directly or indirectly by implication.

[232] Secondly, I have difficulty believing anyway that Sister Ntjana would have scrupulously, every 30 minutes, walked across to the CTG attached to the plaintiff and checked the FHR during the two hours plus at stake here. She was clearly too busy to have done that; and, in any event, it appears too unnatural a procedure for her to have followed.

[233] Thirdly, Sister Ntjana's recording on the partogram of the FHR, to the extent that she did, was already inadequate. Experts on both sides said that the FHR had to be monitored and recorded before, during, and after the contractions. This was necessary to measure the decelerations. The partogram (exhibit E page 48) provides only for the recordal before and after contractions, respectively to be indicated by an "o" and a "x". Sister Ntjana did only one of the two, according to the partogram. And she said that she monitored and recorded the FHR after contractions, to see if the FHR had recovered after "pain."

[234] I conclude therefore that, on the facts, there was probably no monitoring of the FHR for those two hours and ten minutes between 02:30 and 04:40 on 7 January 2013.

[235] The next enquiry is then whether this omission was negligent. That in turn involves examining two elusive issues: whether Sister Ntjana was negligent, given the impossible demands on her skills and energy at that

time in an overcrowded public hospital; and whether that omission has any causative relevance.

[236] As to the first issue: the policy consequences of concluding that a nursing sister in a public hospital in South Africa at this time cannot be judged at the same standard as a nursing sister in a private hospital, is a matter of considerable public consequences. But in my view it needed not be engaged with here, for this reason.

[237] The case for the defendant was not that Sister Ntjana did not monitor at all, because she was too busy. The case was that she in fact monitored, but was too busy to record what she had monitored. At one stage the defendant's case was put on the basis that when the choice came to whether to monitor or record, she chose rather to monitor – that was the more important activity, in the patient's interest. But of course, there never was such a choice: recording implies that there will have been prior monitoring. If there was a choice (in the intended sense), it was between to monitor only or to monitor and record.

[238] As to whether non-monitoring of the FHR during the period concerned was negligent, it seems to me be uncontentious that that must follow. No matter that monitoring is apparently of relatively recent vintage as a practice, all the experts agreed that this had to be done, and exhibit N too exacted this. I conclude then that the defendant's employee, acting in the course and scope of her employment with the defendant, acted negligently.

[239] Was this negligence causatively relevant? It depends on whether the insult to baby K occurred during those two hours and ten minutes; and if

it did, whether the plaintiff has shown that in that event the sequelae to bay K could probably have been avoided.

[240] Did the insult, the acute profound HIE, occur during those two hours and ten minutes? It stands uncontested that the Apgar scores and the exhibit E page 28 checklist ("First Examination Of Neonate") are inconsistent with an injury having occurred to baby K in that last window. And importantly, the evidence of Prof Cooper is against it; the concession of Dr Kara is against it; and the work of Prof Volpe is against it. Baby K was born – by all the usual accounts, as reflected in these records – a normal boy.

[241] Now it is of course possible that Sister Ntjana did not honestly complete the Apgar scores or the exhibit E page 28 checklist. But not only was it never suggested to her that the Apgar information was manufactured, or that the "First Examination Of Neonate" was entirely fabricated – it was not even argued that that should be the finding of this court. All that was suggested was that the suspicion was raised, but that nothing further would be made of it.

[242] But of course, and with respect, that is unhelpful and does not nearly go far enough for this court to make a finding that, probably, those two critical documents were both a false creation of Sister Ntjana's imagination.

[243] Where does that leave one? That the baby was born normally; that within the first six or even twelve hours of life nothing untoward was noticed; that if anything untoward was present it would have been noticed, except possibly – in this latter regard – the difference of opinion

between Prof Cooper and Dr Kara. The former was adamant that even a lay person would have noticed abnormalities within that initial window; the latter opined at one stage that in some cases the immediate sequelae might have been obscured.

[244] I prefer the opinion of Prof Cooper for the following reasons. First, he experience is greater. Second, the reasons he gave, that Dr Kara's position might have applied where the injury was not as marked as here, has the ring of common sense to it. Third, Dr Kara was inclined to qualify his opinions by reference to what the witness considered was a conclusion based on a balance of probability. And as I have indicated above, I do not believe he is qualified to express a view based on his perception of "a balance of probability". And fourth, it would appear that the standard textbook, that of Prof Volpe, supports the position of Prof Cooper.

[245] The conclusion then is that baby K was born normally, and there were no signs of injury for at least the first twelve hours of life. Even if the catastrophic event occurred thereafter in the hospital, it was not the plaintiff's case that such an event was the cause of the present sequelae.

[246] But even if this conclusion is wrong, and even if one assumes that the insult occurred somewhere in those last two hours and ten minutes, there remains a further issue; that relating to causative negligence. There is no evidence as to what could have been done that would, as a matter of probability, have changed the sequelae for baby K had Sister

Ntjana reported an out-of-kilter FHR in those last two hours and ten minutes, and an acute profound insult occurred then.[4]

[247] In the result the conclusion is in my view inevitable that the case was not established. I make the following order:

(a) The defendant is absolved form the instance, with costs.

(b) The costs are to include the qualifying fees, where applicable, of Dr Koll and Prof Cooper.

WHG van der Linde
Judge, High Court
Johannesburg

Dates trial: 13 August – 24 Augustus 2018
Date Judgment: 8 October 2018

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[4] Magqeya v MEC for Health, Eastern Cape (699/17) [2018] ZASCA 141 (1 October 2018) (majority, per Ponnan, JA).