

THE SUPREME COURT OF APPEAL OF SOUTH AFRICA JUDGMENT

Not reportable

Case no: 699/17

In the matter between:

APIWE MAGQEYA obo KWANGA MAGQEYA

APPELLANT

and

MEMBER OF THE EXECUTIVE COUNCIL FOR HEALTH, EASTERN CAPE

RESPONDENT

Neutral citation: *Magqeya v MEC for Health, Eastern Cape* (699/17) [2018] ZASCA 141 (1 October 2018)

Coram: Ponnan, Tshiqi, Majiedt, Swain and Zondi JJA

Heard: 3 September 2018

Delivered: 1 October 2018

Summary: Delict – medical negligence – child suffering cerebral palsy as a result of acute profound hypoxic ischaemic event during labour – inadequate monitoring creating situation of risk to the foetus – hypoxia developing thereafter and catastrophic event ensued – delictual liability established on the facts – falsification of medical records strongly deprecated.

ORDER

On appeal from: Eastern Cape Division of the High Court, Mthatha (Nhlangulela DJP, sitting as court of first instance):

The appeal is dismissed with costs.

JUDGMENT

Majiedt JA (Tshiqi JA concurring):

[1] The appellant, Ms Apiwe Magqeya, claimed delictual damages in the High Court, Mthatha, on behalf of her minor child, Kwanga Magqeya (Kwanga) against the respondent, the Member of the Executive Council for Health, Eastern Cape Province (the MEC). The claim emanated from the child suffering cerebral palsy as a consequence of a hypoxic ischaemic event during the birth process. Nhlangulela DJP who, by agreement between the parties, was called upon to decide only the question of liability, dismissed the claim. The learned Judge found that Ms Magqeya did not succeed in proving negligence and causation. This appeal is with his leave.

The factual matrix

[2] The facts set out below were either common cause or not seriously disputed. It became common cause that the hospital records relating to Ms Magqeya's treatment were altered in material respects. More will be said about that later. Ms Magqeya was admitted to the All Saints hospital at Engcobo on 4 May 2010 at around 12h40, when she presented with labour pains. All Saints is a level one state hospital. For present purposes that classification entails that

the hospital has properly trained and qualified staff (doctors and nurses), medical equipment and a theatre to provide proper obstetric care. Ms Magqeya was 17 years old at that time and it was her first pregnancy. She attended antenatal care at her local clinic from the 32nd week of her pregnancy. The antenatal care was uneventful.

- [3] At admission Ms Magqeya was 40 weeks pregnant, ie full term. Good foetal movements were reported and vital observations were normal. She appeared generally in good health, although her blood pressure rate was recorded as marginally high at 141/71. The foetal heart rate (FHR) was recorded to be 138/min which is within the normal range of 110 160 per minute. The records reflect that Ms Magqeya refused to undergo a vaginal examination. No assessment or plan for further management appear in the records.
- [4] The next entry in the medical records is at 23h45, some 12 hours and 45 minutes later. Mild contractions were noted and a FHR of 135/min was recorded. Another inordinate time lapse ensued before the next entry at 08h20 on the following day, 5 May 2010. The entries reflect that Ms Magqeya was uncooperative, experienced weakness of the knees and refused to get onto the bed. The Partogram, a document which is meant to chart the progress of labour, was said to have been started at this point by the attending nurse. It charted the foetal head as 4/5 above the pelvic brim and the FHR was 140/min. The following contractions were noted: two moderate contractions in 10 minutes at 08h20 and precisely the same contractions at 08h50 and at 09h20.
- [5] According to the records the foetal head was showing at 09h50 when Ms Magqeya pushed. The Partogram showed that the foetal head was at 2/5 at this time and there were three moderate contractions. The FHR was recorded as normal at intervals of half an hour on four occasions between 08h20 and the time of delivery.
- [6] Ms Magqeya delivered her baby at 10h00 by face to pubis delivery. This is a risky manner of delivery, since it is usually delayed because of the

difference in angle and size of the baby's head, compared to a normal delivery. A face to pubis delivery often requires assistance, such as ventouse (vacuum extraction) or by forceps. The Agpar score, which is a basic, general assessment of a newborn baby's general health, was assessed to be five at one minute and seven at five minutes after birth. These scores were later overwritten to eight and eight respectively. Agpar scores are out of 10, with a score of 10 indicating optimal health and well-being.

[7] The medical records noted no visible abnormalities with the placenta, umbilical cord or membranes. It also recorded an absence of meconium staining of the amniotic fluid (which is usually indicative of a healthy newly born baby). Ms Magqeya sustained a severe third degree perineal tear in the delivery process. The tear was sutured in surgery some seven hours later.

[8] It was common cause that Kwanga suffered an acute profound hypoxic event during labour. The experts were agreed that all indications point to a global hypoxic ischaemic injury of a catastrophic nature which resulted in spastic dystonic quadriplegic cerebral palsy.² A hypoxic ischaemic event can be described as lack of oxygen and inadequate perfusion of oxygen through the blood to the brain which causes damage to the brain. Despite initial vigorous contestation on behalf of the MEC, it became common cause by the end of the trial that the cerebral palsy was caused by an acute, profound hypoxic ischaemic injury (the injury). The consensus was brought about by the conclusions contained in the admitted expert report of Professor Van Toorn, a paediatric neurologist. His conclusions were supported by the findings of Professor Savvas Andronikou, a radiologist who performed a magnetic resonance imaging (MRI) scan on Kangwa. His radiology report was admitted as evidence by agreement. In that report, Professor Andronikou concluded as follows:

'Features are those of a chronic evolution of a global insult to the brain due to hypoxic ischaemic injury, of the acute profound type, most likely occurring at term'.

² Ischaemia is a restriction in blood supply which leads to a shortage of oxygen.

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¹ Hypoxia is a prolonged reduction in oxygen supply to the brain.

Professor Van Toorn concurred with the radiology report that 'Kwanga's MRI changes are consistent with a global hypoxic ischaemic injury, of a catastrophic nature, at or around term'.

[9] A brief explanation of the cause and development of hypoxic ischaemia which injures the brain is necessary. The foetus is completely dependent upon the mother for nutrition and oxygen, transmitted through the umbilical cord from the mother's placenta. During the onset of labour the contractions of the uterus (commonly known as 'labour pains') affect the placenta. As the contractions increase in strength, the blood vessels in the placenta become constricted and the blood supply to the foetus via the umbilical cord contains increasing levels of carbon dioxide and less oxygen. Monitoring of the foetal heart rate occurs by means of a cardiotocograph (CTG), which also measures the uterine contractions. CTG readings will convey to nursing staff monitoring the patient three important facets of heart normality: (a) the average (baseline) heart rate which, as stated, should be between 110 - 160 beats per minute; (b) the baseline variability of the heartbeat which normally should be between 5 – 10 beats per minute; and (c) accelerations in the heartbeat. Early and late decelerations of the heartbeat are related to contractions of the uterus. Late decelerations occur after the commencement of uterine contractions and recovers some time after the contractions had ceased. A foetal heart rate below 90 bpm and a series of late decelerations of the heartbeat are cause for concern, as they may suggest that the foetus is in distress. They are referred to in medical parlance as 'non-reassuring foetal heart rate'. Depending on the severity of the foetal distress, it may be necessary to expedite the delivery by performing an urgent caesarean section. Absent timeous intervention, the increasing levels of reduced oxygen supply to the foetus (hypoxia) will result in brain damage.

[10] The central issues at the trial, as in this court, were the reliability of the records, whether the hospital staff was negligent in their treatment of Ms Magqeya and, if so, whether their negligence caused the injury and resultant cerebral palsy. Nhlangulela DJP found in favour of the MEC on all these issues. He found that the hospital records were admitted by consent. The learned

Judge held further that, absent forewarning of a non-reassuring foetal condition *ex facie* the medical records, the hospital staff were not negligent in their treatment of Ms Magqeya. There had not been suboptimal monitoring of the patient which amounted to negligence. On the applicable legal principles, 'the hypothetical non-negligent monitoring would not have produced a better labour outcome', thus factual causation had not been proved. Before deliberating on the cogency of these findings, it is necessary to consider briefly the evidence. A key factor in that consideration is the effect of the altered records. At the end of the trial there was consensus on virtually all aspects of the expert evidence. The essential dispute between the parties related to the conclusions to be drawn from the evidence.

The evidence

[11] Ms Magqeya did not testify, nor did any of the hospital staff. Two obstetric and gynaecology experts, Professor Smith of Tygerberg Children's Hospital and Stellenbosch University, and Dr Hulley, a practising obstetrician and gynaecologist of more than 30 years' experience, testified on behalf of Ms Magqeya. As stated, Professor Van Toorn's expert report was admitted into evidence by agreement. The same occurred in respect of the expert reports of Mr Irving, a forensic document examiner (who also testified), and Professor Andronikou. On behalf of the MEC the only oral evidence presented was that of Professor Buchmann of the Department of Obstetrics and Gynaecology of the University of Witwatersrand. There were several reports of other medical specialists before the trial court, but the ones which I have mentioned formed the main evidential material on the three central issues.

- [12] The common cause facts were as follows:
- (a) There was no dispute that the medical records were tampered with, as detailed in Mr Irving's report.
- (b) The management and care afforded to Ms Magqeya by the medical staff at All Saints hospital was below standard. Professor Buchmann agreed that Ms Magqeya was not managed and cared for properly in the following important respects:

- (i) She should have undergone a full vaginal assessment every four hours after admission.
- (ii) In the face of her alleged refusal to be vaginally examined a doctor should have been called in to assist.
- (iii) Ms Maggeya had a prolonged latent phase of labour (ie poor progress of labour). She ought therefore to have been monitored continuously and an epidural³ and analgesia⁴ should have been offered to her.
- (iv) She should generally have been checked properly and ought to have received proper medical treatment.
- (v) Lastly and conclusively, when asked under cross-examination whether he agreed 'that the staff of the hospital did not comply with the duty and neglected to treat and monitor [Ms Maggeya] as is required in a hospital, Prof Buchmann replied that 'yes according to the guidelines they fell short of that'. When pressed further as to whether that conduct in fact fell short of the guidelines as practised, he stated: '[t]hat's reasonable to state that'.
- (c) The absence of proper monitoring would create a risk to both Ms Magqeya and the foetus in the process of labour.
- (d) Kwanga's brain injury was caused by a hypoxic ischaemic injury (also at times referred to as 'intrapartum ashpyxia'5 during the trial) which caused the cerebral palsy.

The medical records

[13] At issue was whether those parts of the hospital records disputed on behalf of Ms Maggeya, in particular the Partogram, were admissible as evidence. The authors of those records were not called to testify. Absent agreement between the parties, they would ordinarily constitute inadmissible hearsay. The trial Judge held that the records were admissible on the basis that 'the plaintiff. . . agreed to the introduction and use of the hospital records before

³ A pain relieving injection administered in the area of the spinal cord.

⁴ Pain relieving medication.

⁵ Oxygen deprivation during labour.

and during the commencement of the trial without demur'. That finding flies in the face of the basis upon which it was agreed on behalf of Ms Magqeya in the pre-trial minute that documents may be admitted without proof at the trial. The minute noted that the parties agreed that hospital records 'will be admitted as evidence without formal proof, subject to the entitlement of any party to dispute any aspect thereof'. The finding is also controverted by the evidence on behalf of Ms Magqeya as adduced by Prof Smith and Dr Hulley. Both of them, particularly Dr Hulley, were adamant in disputing the correctness of the records. Moreover, Mr Irving's report and testimony became undisputed. He demonstrated persuasively that the hospital records were extensively altered. Absent any explanation by those who effected the alterations, it must be accepted that the alterations were made to falsify the records.

[14] The trial Judge invoked the provisions of s 3(1)(a) and (c)(vi) of the Law of Evidence Amendment Act 45 of 1988 in support of this finding. The section reads as follows:

'Hearsay evidence

- (1) Subject to the provisions of any other law, hearsay evidence shall not be admitted as evidence at criminal or civil proceedings, unless –
- (a) each party against whom the evidence is to be adduced agrees to the admission thereof as evidence at such proceedings;

. . .

- (c) the court, having regard to
 - (i) the nature of the proceedings;
 - (ii) the nature of the evidence;
 - (iii) the purpose for which the evidence is tendered;
 - (iv) the probative value of the evidence;
 - (v) the reason why the evidence is not given by the person upon whose credibility the probative value of such evidence depends;
 - (vi) any prejudice to a party which the admission of such evidence might entail; and
 - (vii) any other factor which should in the opinion of the court be taken into account.

is of the opinion that such evidence should be admitted in the interests of justice.

- [15] The high court's reliance on this section to rule that the records were admitted by consent is flawed in the following respects. First, the MEC did not seek their admission on this basis and the parties were not afforded an opportunity to address the court on it. Secondly, the learned Judge disregarded the factors listed in s 3(1)(c)(ii) (v) and failed to have adequate regard to s 3(c)(vi). The tampering of the records had become common cause at the trial. The only possible inference is that the tampering had as its sole purpose the falsification of the records. A proper application of the provisions of s 3(1)(c) would have compelled the high court to a conclusion that the provisions do not find application here.
- [16] The evidence constituted crucial documentary evidence which purportedly tracked Ms Magqeya's labour progress which culminated in a catastrophe upon delivery of her baby. The documentary evidence has a material impact on the question of liability, more particularly the hospital staff's alleged negligent conduct. Had the records in fact been a true, accurate recordal of Ms Magqeya's labour progress, they would be of great probative value and perhaps even decisive in adjudicating the dispute between the parties. No reason at all was proffered why the authors of the records, upon whose credibility the probative value of the records depended, were not called to testify in respect of the numerous instances where the correctness of the records were disputed. And, lastly, the prejudice to Ms Magqeya is self-evident falsified hospital records distorted the true picture of how her labour progressed and of the well-being of her and the foetus.
- [17] For these reasons I find that the high court erred in its ruling regarding the admissibility of the disputed parts of the hospital records. The correct approach to the records is to accept the undisputed parts and to exclude the disputed parts which were falsified. The latter are simply too unreliable to be considered as part of the evidence. This is particularly true of the Partogram. As stated, the compelling deduction is that the Partogram was written up

afterwards, at the time of the falsification of the rest of the hospital records. Again, the only reasonable inference is that the Partogram was drawn up as part of the reprehensible scheme to falsify the records. For that reason, the Partogram cannot be relied upon in instances of disputed facts.

Liability

[18] Ms Maggeya had to prove that her damages were caused by the hospital staff's negligence. A negligent omission is unlawful only in circumstances which 'the law regards as sufficient to give rise to a legal duty to avoid negligently causing harm'.6 Professional persons such as doctors and nurses are required to adhere to the level of skill and diligence exercised by members of the profession to which they belong,⁷ failing which they would be negligent. The sole ground of negligence advanced before us on behalf of Ms Maggeya, was the failure by the nursing staff to adequately monitor and treat her during labour. Counsel was driven to concede that the postnatal neglect initially relied upon was not pleaded and that it would in any event be superfluous in the case of a favourable finding on the main ground of negligence.

[19] With regard to the sole ground of negligence ultimately relied upon, it became common cause through the evidence of Professor Buchmann that (a) the monitoring and treatment were not in accordance with the guidelines as practised in hospitals; and (b) the absence of proper monitoring would create a risk to both mother and foetus. The crux of the dispute pertains to the question what had caused the injury. The argument advanced on behalf of Ms Maggeya was that the lack of proper monitoring and care and the failure to intervene timeously, created a risk of damage to the foetus which then, as a fact, materialised into cerebral palsy. Factual causation was to be found in the creation of the risk, so the argument went. But, when pressed, counsel correctly conceded that inadequate monitoring and treatment, without more, would not

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

⁷ Van Wyk v Lewis 1924 AD 438 at 444.

constitute a negligent omission. I consider next the crucial enquiry – what caused the injury?

[20] It was contended on behalf of the MEC that because this was an acute, profound injury of a catastrophic nature, inadequate treatment and monitoring played no role in its occurrence. The determination of this decisive aspect requires first a discussion of the relevant medical concepts and then an evaluation of the evidence. The terms 'hypoxia' and 'ischaemia' have been explained above. Counsel for the MEC advanced various dictionary meanings in respect of the medical concepts. As stated, Professor Andronikou did not testify – his radiology report was admitted by agreement. Absent oral evidence, regard must be had to these dictionary meanings for a proper understanding of the medical terms. Stedman's Medical Dictionary (Stedman's)⁸ defines 'acute' as 'referring to a disease of sudden onset and brief course, not chronic'.9 The Concise Oxford Dictionary¹⁰ defines it as 'coming sharply to a crisis; severe. Often contrasted with chronic'. It defines 'chronic' as 'persisting for a long time or constantly recurring'. 'Profound' means 'very great or intense, severe' and 'catastrophic' is defined as 'involving or causing sudden great damage or suffering'. 12 Reference was made on several occasions to a 'sentinel event'. Stedman's defines it as follows:

'Nursing – any unexpected occurrence resulting in death, serious injury (eg. physical, psychological, or other), or risk to the patient.'13

Some of the experts who testified gave examples of sentinel events such as the abruption of the placenta or umbilical cord, uterine rupture and a prolapse of the umbilical cord (where the cord slips forward or down). The MEC's case is that a sentinel event has in fact occurred here, namely a sudden onset ('acute'), unexpected profound event which caused sudden great damage ('catastrophic').

⁸ Stedman's Medical Dictionary for the Health Professions and Nursing 7ed (2012).

⁹ ld at 28

¹⁰ The Concise Oxford English Dictionary 12ed (2011).

¹¹ ld.

¹² ld.

¹³ Supra at 1524.

[21] It will be immediately apparent that the conclusion in Professor Andronikou's radiology report appears to be confusing and, on the face of it, contradictory. It mentions a 'chronic evolution of a global insult to the brain' which was caused by a 'hypoxic ischaemic injury, of the acute profound type'. The conclusion suggests in the same breath a condition which developed over a long period of time ('chronic evolution'), but which is said to be 'acute' and 'profound'. As appears from the preceding paragraph, the term 'acute' is defined by both Stedman's and the Oxford Dictionary as an antonym to 'chronic'. Both Professor Smith and Professor Buchmann placed much reliance on the findings in the radiology report. I regard their evidence, read with the radiology findings, as decisive in determining the question of liability.

[22] The diametrically opposing positions adopted by the parties are on the one hand that there was a gradual development of hypoxia (referred to in the evidence as a 'partial prolonged event'), unnoticed by the hospital staff due to inadequate monitoring, which later resulted in the catastrophic hypoxic ischaemia. On this argument there would have been ample forewarning of the impending catastrophe had the hospital staff acted properly and in accordance with what was required of them in practice. The lack of adequate monitoring constitutes a negligent omission. And factual causation, on this argument, is to be found in the creation of a situation where the foetus was placed at risk of, amongst others, hypoxia, which could have been averted by proper, adequate monitoring. In this regard reliance was placed on *Lee v Minister of Correctional Services*. ¹⁴

[23] On the other hand, the MEC's case is that no negligent conduct has been proved, since inadequate monitoring in itself would not have averted the sudden, catastrophic outcome of hypoxic ischaemia. On the well-established principles of delict, liability has not been established and *Lee* does not apply here, so the argument went.

¹⁴ Lee v Minister of Correctional Services [2012] ZACC 30; 2013 (2) SA 144 (CC).

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[24] On the common cause facts there was no monitoring of Ms Magqeya for extraordinarily lengthy periods: from 12h40 until 23h45 on 4 May 2010 and from 23h45 until 08h20 on the following day. The undisputed parts of the hospital records bear this out. Professor Buchmann conceded that this was inadequate and contrary to not only the guidelines, but also to standard practice. It would appear that Ms Magqeya's apparent refusal to co-operate may have caused this apathy towards her monitoring and care. As Professor Buchmann pointed out, the hospital staff should in those circumstances have called in a doctor to assist. On the common cause facts the inadequate monitoring placed both Ms Magqeya and the foetus at risk. In an article co-authored by Professor Buchmann the following conclusion appears:

'A labour related Intrapartum Hypoxia is a common and avoidable cause of perinatal death in South Africa, and the majority of these deaths occur in no risk situations where labour appears to be normal. The overwhelming problem seems to be failure to detect evidence of foetal distress. To prevent these unnecessary deaths the emphasis in labour and care should be close and careful monitoring of all women in labour, with particular attention to detail in foetal heart rate monitoring.' (my emphasis).

Counsel for the MEC correctly contended that Professor Smith and Dr. Hulley gave inadmissible hearsay evidence regarding Ms Magqeya's treatment and care in hospital. As stated, Ms Magqeya did not testify. But the undisputed parts of the hospital records bear testimony to this fact. The next enquiry is – when on the probabilities did the hypoxia start developing?

[25] Professor Smith's conclusion in his report was that 'the foetus suffered acute profound intrapartum asphyxia and hypoxic ischaemic injury to his brain which developed into an early onset neonatal encephalopathy¹⁵ which ultimately manifested as cerebral palsy. These outcomes would probably have been preventable had proper obstetric care been provided to the patient and delivery of the child been expedited.' He explained under cross-examination that with proper monitoring there would have been forewarning of abnormal heart rate during uterine contractions and a caesarean section could have been performed urgently to expedite delivery. It was common cause that the active

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¹⁵ A general term describing brain disease or brain damage.

phase of labour commenced at around 08h20 on 5 May. During this second, active phase of labour in the hour before delivery (ie between 09h00 and 10h00 on 5 May 2010), a caesarean section would not have been appropriate, in the event of an abnormal foetal heart rate having been detected at that time. A caesarean section would have taken too long to avert a catastrophe.

[26] Reference was made by Professor Smith to an article by Murray and others¹⁶ where the authors discuss the timing of injury in hypoxic ischaemic encephalopathy, a key question in this case. One of the observations made in the article is that 'infants with acute sentinel events had the worst encephalopathy. This suggests that the mechanism of insult may be as important as the timing in determining the extent of the cerebral insult.'

[27] With reference to the opinions expressed in the article, which he endorsed¹⁷, Professor Smith indicated that where the FHR was normal upon admission but gradually deteriorated, warning signs would have started some 145 minutes prior to delivery. In the present case, that would translate into a time of approximately 07h35 on 5 May 2010. The article shows, however, that where an acute sentinel event occurs, the duration between that event and delivery is only 22 minutes, ie around 09h38 on the 5th. It can therefore be accepted that the period between 07h35 and 09h38 was the window during which an opportunity existed for urgent intervention by the hospital staff. This period is narrowed down in the article to 90 minutes prior to delivery. The authors say that 'the narrow window of 90 minutes prior to delivery could theoretically offer an opportunity for intensive monitoring and intervention', but they express no final view on it. They do make the point though, that in instances of pre-admission brain injuries or acute sentinel events 'obstetric intervention may not be possible or beneficial'.

¹⁶ Deidre M. Murray and others 'Fetal heart rate patterns in neo-natal hypoxic-ischaemic encephalopathy: relationship with early cerebral activity and neurodevelopmental outcome' 2009 American Journal of Perinatology, 605 – 612.

¹⁷ And thus became his own opinion: \overrightarrow{R} v Mofokeng & another 1928 AD 132 at 136, as cited in R v Harris 1965 (2) SA 340 (A) at 344 D – H.

- [28] From the above it is plain that the crucial time when the outcome could no longer be averted was after around 09h38. But Professor Smith stated in reexamination that the acute insult can arise in the period between 10 to 46 minutes before delivery, ie between 09h14 09h50. Given the periods of forewarning and of the acute insult occurring as outlined above, the hospital records of 5 May 2010 assume particular importance. The disputed Partogram shows that the FHR was normal at 142 bpm at 08h20 on 5 May. As stated, the FHR was recorded as normal at half-hourly intervals on four occasions between 08h20 and the time of delivery, 10h00. And two moderate contractions in 10 minutes were noted at 08h20, 08h50 and 09h20. Three moderate contractions were recorded at 09h50. All these notes emanate from the Partogram and the falsified clinical notes.
- [29] Professor Buchmann conceded under cross-examination that the heart rates, contractions and Agpar scores (which it will be recalled were altered to 8 at 1 minute after birth and 8 at 5 minutes after birth) on these records incorrectly paint a picture of a healthy, normal baby having been delivered. Even with the falsification, there is an inconsistency between the FHR measured at 08h20 as it appears on the Partogram (134 bpm) and the altered clinical records (142 bpm) which Professor Buchmann conceded. It was common cause that Ms Magqeya's first blood pressure reading during admission at 12h40 on 4 May 2010 was changed from 140/71 to 120/80. The Partogram reflects the subsequently altered reading of 120/80. The ineluctable conclusion is that the Partogram was drawn up at the same time as the falsified clinical notes. Professor Buchmann conceded as much. He also conceded that his assessment and conclusions were squarely based on the Partogram. The exchange under cross-examination went as follows ('witness' refers to Professor Buchmann):

'Mr Wessels: That's the point I am making thank you. You see Professor you and your colleagues as you had to do, you have got to use whatever you have, to come to your opinion rightly or wrongly, but having regard to the fact that this Partogram, such as it is, with the deficient entries, or in the sense that it doesn't help you much to first get a heart rate, the fact that they would have known, that there was what the cervical dilation was, because they wouldn't have been able to do a test of the moulding without

assessing that, with the blood pressure recording which is inconsistent with the problems identified, this tells you that this Partogram, cannot be relied upon at all, and that unfortunately puts all of your doctors in the position that there is nothing there that reliable to base your opinion on. You have any comment?

Witness: All I have is a Partogram which has been completed, and we have to use it as the record, because there isn't anything else. . .

Witness: I go with the record that's in front of me, and I, I have nothing else and that's what I have to follow, if someone has been tampering I don't know whose been tampering and why that I cannot get into that discussion, all I know is there is a record, and I look at it, and I try my best, to judge not to judge but to work out what went on.

Mr Wessels: And if the basis of your opinion being the records fall away, then obviously your opinion is not based on fact.

Witness: If there is no Partogram I cannot make any of this assessment.

Mr Wessels: Yes.

Witness: But there is a Partogram and its in front of me, and that's what I used to work out what had happened.' (My emphasis).

[30] These concessions must self-evidently adversely impact upon Professor Buchmann's conclusions insofar as they differ from the objective, undisputed facts as they appear in the hospital records. On the important aspects of inadequate monitoring and its effect, however as stated, he was *ad idem* with Professor Smith and Dr Hulley.

[31] In developing the argument on behalf of the MEC, much reliance was placed on the normal FHR of 142 bpm at 08h20 on 5 May 2010. That information came from the questionable Partogram and was disputed by both Professor Smith and Dr Hulley. Apart from its unreliability, there is a further problem with the recording of the heart rates between the critical period of 08h00 to 10h00 on 5 May. Both Professor Smith and Professor Buchmann stated that the weakness in the Partogram recordings is that they do not indicate whether the recorded heart rates were before, during or after a uterine contraction. This is an important aspect, since foetal distress can only be properly determined through an indication of when exactly a deceleration in the foetal heart rate occurs. All the Partogram showed was a normal baseline heart

rate. When asked about this inadequacy in the Partogram recordings, Professor Buchmann conceded the point as follows:

'Mr Wessels: But the indications for Hypoxia is not in, not necessarily in the base line heart rate it is in the decelerations?

Witness: Yes.'

[32] Professor Buchmann explained the mechanics of a late deceleration as follows:

'Witness: Now what happens when a woman is in labour, is the contractions sometimes deprive the baby of oxygen, either by compressing the cord, or just being strong, and the baby reacts to low oxygen, by slowing down the foetal heart. This can happen during a contraction, which is not a big worry, because as long as it recovers, at the end of the contraction, it means the baby is compensating for the lack of oxygen. If the slowing of the heart rate persists, past the contraction. Now the uterus is no longer contracting, its soft, but the deceleration is still there, then we call it a late deceleration, and that suggests that the baby is becoming more severely Hypoxic. The last stage is when the heart rate goes right down, below the normal limit of 110, and it stays there, or it goes even lower, and that's called a Bradycardia that's slowing of the heart rate without recovery at all.'

[33] On the common cause facts, three moderate uterine contractions are, absent a placental disease or sentinel event, unlikely to cause foetal distress. While the frequency of contractions were recorded after 08h20, there is no indication of either the strength or duration of contractions prior to 08h20. These measurements are important, since they could be indicative of foetal distress which would manifest itself in a deceleration and slow recovery of the heart rate. Absent proper monitoring and assessment, these warning signs may be missed altogether.

[34] A further area of neglect and inadequate care and treatment was, as Professor Buchmann confirmed, Ms Magqeya's poor progress of labour which manifested in her prolonged latent phase (or first phase) of labour. While there was some debate as to whether the national guidelines of eight hours or the international standard of 20 hours, should be used in determining whether Ms

Magqeya had a prolonged latent phase of labour, ultimately it makes no difference. At best for the MEC, by 08h40 on 5 May 2010 Ms Magqeya was in that phase. On the evidence nothing was done to address this concern. Although Professor Buchmann subscribed to the international standard, he agreed that eight hours in hospital should have raised the hospital staff's concern. The exchange under cross-examination went as follows:

'Witness: Yes I have explained the rationale for the South African guidelines, it doesn't change the internationally recognised 20 hour cut off as prolonged latent phase of labour, the eight hours is for the woman to be checked to see what's going on, because eight hours in hospital is of concern.

Mr Wessels: Precisely she should have been checked eight hours because the South African norm says, there is prolonged latent phase after eight hours.

Witness: I have said as much in my report'.

[35] In my view the acute, profound hypoxic ischaemia was not a sentinel event as understood in the medical profession and as defined in Stedman's¹⁸. Instead, there was, as Professor Andronikou's radiology report suggest, hypoxia and foetal distress which developed, undetected due to the lack of monitoring, over some time. The catastrophic insult followed thereafter, probably after 09h38 on 5 May 2010. Professor Smith explained it as follows:

'.... we have what I inform the Court about the likelihood that there was forewarning, foetal heart rate abnormalities, because there was probable intermittent Hypoxia, which depleted the reserves and then that was followed by an acute decompensation profound insult and the child developed this brain injury as per MRI.

Mr De Bruyn: Professor, I am not going to go over and over the so-called warnings that you find somewhere. All I am saying to you is, we have an acute Hypoxia in this case, not so?

Witness: Yes but I don't want the Court to get the impression that it was ten minutes, and its all over, and it couldn't have been prevented. That's why I am repeating myself, as long as the Court understand my point of view and I also initially Counsel and I debated this in human studies with acute sentinel events, when its clear cut catastrophic was fine and then boef, last anything between 10 and 46 minutes, so there is a wider timeframe we are looking at. We are not just talking about 22 minutes medium.

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¹⁸ See para 20 above.

Mr De Bruyn: We are looking at anything between 22 and 145 minutes that is what you told us.

Witness: That's the forewarning I am now talking about just.

Mr De Bruyn: The incident. **Witness**: The incident yes.

Mr De Bruyn: But the incident normally occurs close to birth?

Witness: No.

Mr De Bruyn: If its an acute incident.

Witness: Well as I said yes, it occurs within the timeframe, I have now again put that

10 to 46 minutes. **Mr De Bruyn**: Yes.

Witness: But.

Mr De Bruyn: It could have occurred in this case at 9h30 for instance.

Witness: No I don't, the final incident could have occurred then but the forewarning I

state to the Court must have been there based on the analysis of probability.

Mr De Bruyn: But you don't, nobody can say when it started, if at all?

Witness: We know that those that develop the acute insult, have a 22 to a 146 Counsel

just said it 146 minutes before birth, that's when it starts occurring.'

[36] The outcome could have been prevented through proper, adequate monitoring. Had there been proper monitoring, the forewarning of foetal heart abnormalities, which must on the probabilities have been present from approximately 07h35 on 5 May 2010, could have been heeded. Urgent intervention would in all likelihood have followed, most probably by way of an emergency caesarean section.

[37] Professor Buchmann agreed that there was no placental disease, nor sentinel event in this case. In reliance on the Partogram, he opined that 'at 08h20 it would seem unlikely given the absence of those factors, that two moderate contractions could cause significant hypoxemia'¹⁹. I have already alluded to the discrepancy in the heart rate of the foetus at 08h20 as recorded in the Partogram on the one hand and the clinical notes on the other. This raises

¹⁹ An abnormally low level of oxygen in the blood which could lead to hypoxia. The term is also sometimes used interchangeably with 'hypoxia'.

some doubt as to the correctness of Professor Buchmann who, as stated, based his opinions squarely on the medical records.

[38] As far as the key question under discussion is concerned, Professor Smith was adamant in his view that hypoxia developed gradually over some time, unnoticed, and the acute, profound hypoxic ischaemic insult ensued thereafter. I have already referred to Professor Andronikou's conclusions. Professor Buchmann relied on the latter conclusions in expressing an opinion that there was no partial, prolonged event, but an acute, profound event which occurred suddenly. It is necessary, given the importance of this aspect, to recount the evidence verbatim:

'Mr Wessels: In most cases. In some cases it develops slowly over a period of time, the foetus compensates, and when the next contraction come, it happens again that the foetus compensates, but so, so it goes on, and it may wear the foetus down, the coping mechanisms get worn down is that correct?

Witness: It is correct, you, Counsel is describing the evolution of a partial prolonged event.

Mr Wessels: Yes.

Witness: It's that evolution of compensation to decompensation is very good with an acute profound event.

Mr Wessels: But Professor that acute profound event, is when you have abruption placenta one of those factors that you dealt with here, that are not present, correct? **Witness**: You don't have to have.

Mr Wessels: Cord compression, abruptio placenta, one of those type of things?

Witness: Those are examples of acute profound events, but even an abruptio can give you a partial prolonged, even a cord prolapse can do that, and even none of those can the absence of any can result in an acute profound event. One of the possibilities, and I think we may have discussed in the, in the course of proceedings, was what was called an occord cord, an umbilical cord that is, that is partially wrapped around the baby and gets compressed, and as the baby delivers its released and you can't see that it was there. These are things that can happen which are not obvious, hence I say there was no obvious cause.

Mr Wessels: Yes, but what I want to suggest to you is, what could possibly have happened here, was that there was indications of Hypoxia which you would only find if you observed the woman properly and check the foetal heart rate during contractions,

and eventually when the contractions became very strong, there was an exacerbation of all of it, that you have warning of and that is what caused this acute profound event. **Witness**: yes, yes, M'Lord, we don't know if the midwives listened before during and after contractions, they simply recorded normal heart rates, as samples of the heart rate measurement at that time. So it, I don't know if it was properly monitored in that way, in that sense.'

[39] As I have said, in my view, the radiology report supports the contentions advanced on behalf of Ms Magqeya that what had occurred was an unmonitored and undetected gradual evolution of hypoxia, followed by the acute, catastrophic hypoxic ischaemia. The lack of adequate monitoring and care constitutes in my view negligence. It was common cause (conceded by Professor Buchmann) that this neglect was contrary to the professional guidelines and practice. Such a 'failure of a professional person to adhere to the general level of skill and diligence possessed and exercised at the same time by members of the branch of the profession to which he or she belongs would normally constitute negligence'.²⁰

[40] This court has held that the nursing profession is a distinct profession and nurses are expected to perform their duties with the requisite skill and diligence exercised by members of that profession.²¹ The negligent lack of monitoring and care for the extraordinarily long periods, as set out above, resulted in the risk of, *inter alia*, hypoxia developing unnoticed. Was this, however, adequate for factual causation to have been established on a preponderance of probabilities? For the reasons that follow, I am of the view that the answer should be in the affirmative.

[41] In this case there is no clear, direct evidence of when exactly the catastrophic event occurred. In drawing inferences from the proved facts, a plaintiff need only prove that the inference that she propounds, is the most readily apparent and acceptable inference from a number of possible

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²⁰ Goliath v MEC for Health, Eastern Cape [2014] ZASCA 182; 2015 (2) SA 97 (SCA) para 8.

²¹ Van Wyk v Lewis, supra, at 458-459.

inferences.²² The most plausible explanation is in my view the one advanced on behalf of Ms Magqeya. And I agree that this case falls squarely within the ambit of *Lee*²³. In *Lee* the plaintiff sued the Minister for Correctional Services for his department's failure to adopt adequate measures to prevent contamination in prisons. Mr Lee contracted tuberculosis while incarcerated in prison. His difficulty in proving factual causation was that the incident or source of his tuberculosis infection was unknown. In applying the 'but for test', this court found against Mr Lee. The Constitutional Court, however, overturned that decision. The majority applied a more flexible approach in determining factual causation. It held that the question of factual causation should have been approached as the high court correctly did 'by asking whether the factual conditions of Mr Lee's incarceration were a more probable cause of his tuberculosis, than that which would have been the case had he not been incarcerated in those conditions.'²⁴

[42] The majority furthermore cautioned that it is wrong to reason that factual causation can never be proved where the specific incident or source of infection cannot be identified'²⁵ It concluded that 'it would be enough . . . to satisfy probable factual causation where the evidence establishes that the plaintiff found himself in the kind of situation where the risk of contagion would have been reduced by proper systemic measures'.²⁶ On this basis, the majority found for Mr Lee on factual causation.

[43] Here, too, Ms Magqeya was unable to locate the source and time of the hypoxic ischaemia, largely due to the poor and deceitful record keeping by the hospital staff. On Professor Buchmann's testimony the absence of proper monitoring would create a risk for Ms Magqeya and the foetus. On this basis, factual causation had been proved on a balance of probabilities. Kwanga's injury would not have occurred on the probabilities, had his mother been

²² A A Onderlinge Assuransie Assosiasie Bpk v De Beer 1982 (2) SA 603 (A).

²⁴ Lee v Minister of Correctional Services, supra, para 55.

²³ See footnote 14 above.

²⁵ Lee, para 63.

²⁶ Paragraph 60.

23

properly monitored. That, in my view, is the most plausible inference on the available evidence.

Conclusion

[44] For these reasons, I would have upheld the appeal with costs. As this is a minority judgment, there is no need to formulate an order. What remains is to seriously deprecate the abhorrent conduct of those who falsified the medical records. It is conduct unbecoming to persons employed to serve all citizens.

S A Majiedt
Judge of Appeal

Ponnan JA (Swain and Zondi JJA concurring):

[45] I accept that the interaction between the law and medicine can, and usually does, present complex challenges, particularly where, as here, a minor suffers a hypoxic ischaemic (HI) event during the birth process. What occupied the attention of the high court were two issues: first, whether the medical staff in the employ of the MEC were negligent and second, whether that negligence is causally connected to the permanent brain damage and consequent cerebral palsy sustained by the appellant's minor child, Kwanga Magqeya.

[46] In dismissing the claim of the appellant, Ms Magqeya, the high court held: 'On the probabilities emerging from the facts of this case it is not likely that the improper monitoring of plaintiff's labour caused the HI that led to the cerebral palsy. The evidence does not show that the hypothetical negligent monitoring of the foetus in the absence of warning signs would have prevented [the] insult from occurring.' Majiedt JA takes the view that the reasoning and conclusion of that court cannot be supported and consequently he would allow the appeal with costs. I regret, I cannot agree.

- [47] A peculiar feature of this case is that, despite the appellant being available and there having been an intimation by her counsel to the trial court that she would be called as a witness, she did not testify. Her failure to testify means that there are significant gaps in the factual narrative. Thus, to the extent that there were matters that were peculiarly within her knowledge, which were not placed before the court, this must count against her.
- [48] The appellant's failure to testify also meant that in certain important respects the evidence of her experts, Dr Hulley and Professor Smith, constituted inadmissible hearsay. That was made plain by counsel for the MEC during the course of the trial. In that regard he cautioned:

'Mr de Bruyn: M'Lord, I am so sorry to interrupt, I forgot to put something on record, before when Mr Hulley was called. Your Lordship, will remember Mr Hulley gave a lot of hearsay evidence as to what the plaintiff would have told him. We did not object at that stage, because we assumed plaintiff is going to be called. We still do not object to any hearsay evidence, as to what the plaintiff told him provided, that the plaintiff be called to confirm. If plaintiff be not called, then all that evidence must be ignored. Its hearsay evidence, and I just want to place that on record. I did put to Professor Smith that his evidence is actually double hearsay, from plaintiff to Dr Hulley, from Dr Hulley to Professor Smith, thank you, M'Lord.'

- [49] Moreover, absent Ms Magqeya's testimony, all too often the opinions expressed by the experts lacked a proper factual foundation and amounted to no more than speculative or conjectural hypotheses. This had the effect of the trial becoming an unnecessarily protracted one. One, conducted as if the parties were engaged in an abstract, theoretical exercise. In the result, an unwieldy record in excess of 2600 pages came to be generated and filed with this court on appeal.
- [50] It must be noted that according to the joint pre-trial minute between the parties, the appellant sought consent for and the respondent agreed to the medical records being 'admitted as evidence without formal proof'. It was the appellant who sought the admission of the medical records into evidence. The

alteration of the hospital records, however suspicious, does not constitute proof positive of negligence on the part of the hospital staff. Nor, can one, without more, infer negligence from such conduct. My colleague postulates accepting the undisputed parts and excluding the disputed parts. However, it is unclear where the one ends and the other begins. What is more, such an approach may conduce to conflating admissibility with evidential weight. On the view that I take of the matter, the issue need hardly detain us, because as I shall endeavour to show, whilst the falsification of the hospital records must obviously be deprecated, that the records were altered is a neutral factor in this case.

- [51] On appeal, the appellant's case of negligence came to be restricted to alleged substandard monitoring by the MEC's employees. She was admitted to the hospital at 12h40 on 4 May 2010. Upon admission, the foetal heart rate was normal and the condition of the foetus was reassuring. Of course, that may not have been the time of onset of labour. In the absence of the appellant's testimony, one simply does not know when that was. As Dr Hulley observed 'the patient is the best indicator of [when] she start feeling contractions, and labour. . . . '
- [52] It is so that there is no record of her having been re-assessed at 4, and thereafter 8 hours, after admission in compliance with the National Guidelines but, as Professor Smith accepted, she could have been sleeping in that period. Dr Hulley acknowledged that 'most women, 85 percent, manage by therapeutic rest, sleep soundly for six to ten hours, and awaken in advanced active labour.' In that regard, Dr Hulley testified that there are four stages of labour. The first stage consists of two phases the first phase or the latent phase is from the onset of labour until 3 to 4cm dilation; whilst, the second phase is from 3 to 4cm dilation, until fully dilated. The second stage is from full dilation until delivery. The third stage is from the delivery of the foetus until delivery of the placenta.
- [53] Professor Buchmann's evidence was to the effect that 'if the woman is truly in labour and there are no complications, then up to 20 hour latent phase

is normal.' He further testified that it is very difficult to establish an occipital posterior position. This is the case even if a vaginal examination had been performed and even for doctors who specialise in this area. Dr Hulley agreed that in this regard the staff treating the appellant were not negligent. The evidence was that even had an examination revealed the foetus to have been in that position, unless there are warning signs, nature should be allowed to take its course. That is because it may still be possible for the foetus to turn.

[54] All of this however fades into insignificance because as Professor Smith accepted at 8h20 the next morning the foetus was still in a re-assuring condition. Professor Buchmann agreed. The latter opined that if the foetal heart rate was normal at 8h20 one would expect that it would also have been normal prior thereto and that any monitoring before 8h20 am would also have shown normality.

[55] After 8h20 the appellant's condition changed. Professor Buchman explained:

'I would certainly agree that she was in the active phase of labour at 08h20 and that is because her demeanour changed, she was feeling weak at the knees, she didn't want to get up on the bed, the typical posture of a woman, who is in the active phase of labour, she is no longer walking around like the latent phase. She likes to lean against something like this.

. . .

But certainly her demeanour changed, so she probably had moved into, what we would call in a more lay term strong labour, she was feeling strong pains, probably in the active phase, probably not yet in the second stage, because there were only two contractions in ten minutes, and the head was four fifths up. We certainly know she was in the second stage at 09h50, because that's where the head showed, and that's how normally women demonstrate second stage of labour, they say I feel something, I want to push, and she did that at ten to ten, 09h50.'

According to Professor Smith, once 'the active phase started at 08h20 then there was rapid progression . . . The baby's head crowned with bearing down efforts at 9h50 and it was now evident that the presentation was abnormal in that it was an occipital posterior position.'

[56] In this regard, an important piece of the mosaic is the report of the radiologist, Professor Andronikou. Professor Andronikou, who performed an MRI scan on Kwanga, concluded:

'Features are those of a chronic evolution of a global insult to the brain due to hypoxic ischaemic injury, of the acute profound type, most likely occurring at term'.

Majiedt JA, after referring to various authoritative dictionaries, states (para 21) that the report 'appears to be confusing and, on the face of it contradictory'. With that, I feel constrained to disagree. There is simply nothing to gainsay Professor Andronikou's conclusion. The report was admitted into evidence by consent. Counsel for the appellant placed on record then:

'Furthermore the radiology opinion was not that the minor suffered a brain injury as a result of global Hypoxic Ischemic Encephalopathy but that it is due to Hypoxic Ischemic injury of the acute profound type'.

[57] Whilst lexical research is useful and at times indispensable, occasionally it is not.²⁷ As pointed out in *Fundstrust (Pty) Ltd (in Liquidation) v Van Deventer* (at 726H -727B):²⁸

'Recourse to authoritative dictionaries is a permissible and often helpful method available to courts to ascertain the ordinary meaning of words. . .but judicial interpretation cannot be undertaken. . . by 'excessive peering at the language to be interpreted without sufficient attention to the contextual scene."

[58] The experts, who testified during the trial, did not express any reservations about Professor Andronikou's report. None suggested that it was confusing, much less contradictory. Nor, do I understand that to have been the appellant's case either in this court or the one below. Indeed, Professor Smith accepted:

"... There's no doubt, and I'll get to that, there is no doubt that this baby suffered an acute, profound intrapartum, that is during labour, hypoxic ischemic brain injury. The MRI of this child's brain is one of the two classic or prototypes of the types of injuries

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Aktiebolaget Hässle and Another v Triomed (Pty) Ltd 2003 (1) SA 155 (SCA) para 9.
 Fundstrust (Pty) Ltd (in Liquidation) v Van Deventer 1997 (1) SA 710 (A); [1997] 1 All SA 644 at 726H–727B.

babies suffer during labour which result in cerebral palsy. There is no other condition that repeatedly and reliably can give this MRI injury pattern in a newborn baby.

[59] Later, Professor Smith added:

'The process of – this child's injury occurred in utero by the nature of the MRI scan which reveals an acute profound type injury, the injury probably occurred within the last hour of birth. . . .'

In that, Professor Buchman was at one with Professor Smith, when he stated: 'We know from the subsequent findings that it was an acute profound incident that it was short and severe, and that it, and we also know that the contractions are strongest at the end of labour.'

The 'subsequent findings' were in fact the MRI scan and Professor Andronikou's report. Professor Buchmann testified that because contractions tend to strengthen as labour progresses, it is unlikely that foetal hypoxia could have occurred before 09h20, because at that time the contraction frequency was still two in ten minutes. He explained that 'two contractions in ten minutes, which are moderate, cannot possibly deprive the baby of oxygen to a point that it has a Hypoxic Ischemic injury and that was the case up to 09h20.'

[60] Importantly, Professor Smith was alive to the distinction between, on the one hand, an acute profound injury as alluded to by Professor Andronikou and, on the other, a partial prolonged type brain injury. He explained:

'This type of injury pattern, the acute profound, is established within less than an hour. And my statement is based on the literature.

. . .

That could be hours, but the final picture suggests very strongly that the final insult occurred over a short period of time.

. . .

No, I disagree, M'Lord. It definitely times it as hours. If it's a partial prolonged type brain injury it will be hours. If it is an acute profound injury, as in this case, it is less than 60 minutes.

. . .

And we know that the likelihood of this type of brain injury to have occurred was during the last hour of labour.'

[61] According to Professor Smith, '[t]he foetal condition changed from reassuring to non-assuring, in that 22 to 145 minute period before delivery, which is in accordance with scientific evidence.' He elaborated under cross examination:

'Mr de Bruyn: Just to come back to your evidence again, as I put it in my unscientific medical way, as a build up something that happened, you can't time it, you cannot say when that would've occurred, how close to birth, how close to delivery, is that correct? Smith: The timeframes that I've given in my summary of my evidence is what is recorded in the literate, and that is 22 to a 145 minutes before birth.

Mr de Bruyn: So 22 minutes before birth – or let us say 25 minutes before – or 30 minutes before birth it could've happened?

Smith: Up to a 145 minutes, yes.

Mr de Bruyn: Yes-yes. (Pause). Apart from these two articles that you so kindly referred us to, normally, if I understand it correctly, the cause of HI is normally unknown, unless there was this cord prolapse or the abruptio placentae, or something like that, but that you will see?

Smith: Yes, that you will see. And in most of these cases where the placenta is not examined and where there's no clear evidence for a catastrophic event, it's related to the umbilical cord, but that you can't find after the – because if there's not knot in the cord or anything like that, that you won't pick up because the intermittent pressure will not leave on the cord and impression or a footprint so to speak, you will just have the cord.'

[62] Later, Professor Smith added:

'It is more likely, M'Lord, these articles, and the times now I am going to refer to, tells you that anything between 22 minutes and a 146 minutes before the baby is born, during that period, the foetal heart will then show changes of a baby who developed a non-reassuring condition. We then debated also shorter periods, because we were talking about acute and profound Hypoxic Ischemic injury to the brain. That type of injury follows closer to birth, and that period that I initially when I first appeared in court earlier this year, showed, or told the Court that that acute insult can take from then minutes, to 46 minutes before the baby is born. So within that warning period of 22 minutes to 146 minutes, and that 10 to 46 minutes is in the range that Counsel for the defendant took me yesterday where we discussed this 22 minutes period that you require for such an acute and a profound injury to occur. I hope I made myself clear.'

[63] On this aspect Professor Buchman's evidence ran thus:

'... [O]ne would search for a sentinel event, that could have caused the Hypoxia in a case of AM, there is no evidence of any sentinel event. No cord prolapse, no knot in the cord, no placental abruption, no ruptured uterus and no difficult delivery. On the abovementioned premise, one is left with a possibility that the baby suffered a Hypoxic event immediately before delivery. That could have been related to uterine contractions, but it must be pointed out, that unless there are obvious sentinel events and the placenta has not been examined, the cause of Hypoxia Ischemia is normally unknown.'

[64] It thus came to be accepted that baby Kwanga suffered a HI event immediately before delivery. At such a late stage in labour, according to Professor Buchmann, the staff would not have been able to make a difference to the outcome. That is because if foetal distress had been detected at that stage, a caesarean section would have taken about an hour to arrange and the appellant would have delivered spontaneously before then as she in fact did at 10 o'clock. Professor Smith agreed. He testified: 'Between 09:00 and 10:00 if you pick up an abnormal foetal heart rate at that point in time expediting delivery with a caesarean section is not going to be of assistance because it will take much longer to perform a caesarean section.

[65] It was for the appellant to prove on a balance of probabilities that the conduct complained of caused the harm.²⁹ Assuming in the appellant's favour that the MEC's employees negligently failed to: (i) re-examine the appellant on the 4 and 8 hour mark after her admission and (ii) properly monitor the appellant between 23h45 and 8h20, such failure could have had no causal effect on what happened after 8h20 on 5 May 2010. Whilst such failure may well have been relevant had we been concerned with what has been described as 'a partial prolonged type brain injury' that occurs over hours, it is not for 'an acute profound type', as in this case.

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²⁹ Lee v Minister of Correctional Services 2013 (2) SA 144 CC para 39.

[66]	it follows that the appeal must fall and I would accordingly dismiss it with	
costs.		
The fo	ollowing order issues:	
The appeal is dismissed with costs.		
		V M Ponnan
		Judge of Appeal

APPEARANCES:

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