IN THE HIGH COURT OF SOUTH AFRICA

GAUTENG DIVISION, PRETORIA

CASE NO: 20140/2019

1. Reportable: No	
2. Of interest to other judges: No	
3. Revised	
_____	17/8/2021_
(Signature)	(Date)

In the matter between:

M[....], G[....] S[....] **Plaintiff**

and

THE MEMBER OF THE EXECUTIVE COUNCIL FOR HEALTH OF THE GAUTENG PROVINCIAL GOVERNMENT **Defendant**

Claim based on negligence by nursing staff causing a brain injury to a newly born baby. Negligence established.

JUDGMENT

DE VILLIERS, AJ:

[1] The plaintiff, in her personal and in her representative capacity as mother of a minor daughter, O[....] M[....], claimed damages from the defendant. O[....] was born on 18 June 2014 and suffered a cardiogenic collapse and a hypoxic ischemic injury to her brain a few days later on 24 June 2014 whilst in the Dr George Mukhari (Provincial) Hospital and under the care of nursing staff. The plaintiff contends that the defendant is liable in delict for the damages so suffered by O[....] and by herself. She did not plead the case as two distinct claims, but on the facts that I had to determine, this was not an issue requiring attention.

[2] At the outset, as requested by the parties, I ordered a separation of issues. The order read:

> "*1. In terms of the provisions of Rule 33(4) the issues arising from the following paragraphs of the plaintiff's amended particulars of claim and the defendant's plea thereto are hereby separated for initial determination:*
>
> *1.1 Paragraphs 1, 2, 3, 4, 5, 6, 7 and the introductory portion of paragraph 8 reading "As a result of the aforesaid breach of the legal duty O[....] suffered the injury and the consequent conditions" (which amended particulars of claim were uploaded onto Caselines on 29 June 2021);*
>
> *1.2 Paragraphs 1, 2, 3, 4, 5, 6, 7 and 8 (insofar as paragraph 8 relates to the introductory portion referred to above) of the defendant's amended plea (which amended plea was uploaded onto Caselines on 19 July 2021).*
>
> *2 The remaining paragraphs of the plaintiff's amended particulars of claim dealing with the quantum of the plaintiff's claim and the remaining paragraphs of the defendant's amended plea those paragraphs dealing with the quantum of the plaintiff's claim, including any future amendments to these paragraphs, are postponed sine die*."

[3] I do not repeat the amended particulars of claim in any detail. In short, paragraph 1 of the amended particulars of claim deals with the plaintiff's particulars (admitted by the defendant in the material parts), paragraph 2 deals with the defendant's particulars and control over the hospital concerned (admitted by the defendant), and paragraph 3 deals with a duty of care, course and scope of the employment of the defendant's employees, and the required standard of care (admitted by the defendant). Paragraph 4

deals with the history of the pregnancy, birth, the events during the night in issue, and the harm suffered by O[....] (the material averments are not disputed by the defendant). Paragraph 5 records that the plaintiff does not know the identity of the medical staff concerned (admitted by the defendant). Paragraph 6 deals with "*the injury*" (a defined term) and "*the subsequent conditions*" (a defined term):

> "*O[....] suffered an acute venous air embolism and subsequent cardiogenic collapse; and a hypoxic ischaemic injury to her brain ("the injury") on 24 June 2014. As a result of the injury, O[....] suffers from the following conditions ("the subsequent conditions") and which were not present in O[....] as a new-born infant prior to the re-insertion of the intravenous line at 20h30 and the subsequent cardiogenic collapse: …*"

[4] Five subsequent conditions were pleaded as "*the subsequent conditions*", amongst them being Hypoxic Ischemic Epileptic Encephalopathy (HIE) Grade II, which condition the defendant admitted. The defendant denied in the amended plea the remainder of the averments. Not all averments remained in issue, as it became common cause before me that O[....] suffered an acute venous air embolism, a subsequent cardiogenic collapse and a hypoxic ischaemic injury to her brain.

[5] Paragraph 7 of amended particulars of claim deals with the grounds of negligence. I revert to this aspect. Paragraph 8 of addresses what the plaintiff defined as "*the sequelae*" to "*the injury*" (as reflected already, a defined term) and "*the subsequent conditions*" (as reflected already, a defined term) suffered by O[....]. The issues for determination end before the first of these conditions are listed as sub-paragraphs, being *sequelae* such as pain and suffering, medical expenses, loss of the amenities of life, loss of earning and/or earning capacity, and the like. I therefore only had to determine if O[....] as a result of the aforesaid breach of the legal duty suffered "*the injury*" (as defined) and "*the subsequent conditions*" (as defined), and I need not determine "*the sequelae"* (as defined).

[6] Paragraph 9 of the plaintiff's amended particulars of claim avers that O[....] and the plaintiff suffered damages as set out in the remainder of the particulars of claim, and avers that was as a consequence of "*the injury*", "*the*

subsequent conditions", and "*the sequelae*". This is done in paragraphs 10 and 11 of the particulars of claim. Paragraph 12 deals with compliance with the provisions of Section 3(2)(a) of the *Institution of Legal Proceedings against Certain Organs of State Act* 40 of 2002. None of these matters served before me for determination.

[7] The plaintiff's team prepared a very useful note of about fifty pages, used both as the opening address and as the closing argument. I make extensive use of it in this judgment. The defendant did not dispute in argument any averment contained in the note. The defendant's plea, where it placed matters in issue, was is in essence a bare denial.

[8] In the end, the plaintiff, as formulated by it, bore the onus to prove on a balance of probabilities the following matters and set out to prove these matters before me:

"*10.1 O[....]'s condition was caused by a hypoxic ischemic injury sustained in the postnatal period during the cardiovascular collapse on 24 June 2014;*

10.2 The cardiovascular collapse was caused by a venous air embolism after the intravenous line was re-inserted on 24 June 2014 by the defendant's employees;

10.3 The defendant's employees were negligent in the manner of insertion of the intravenous line in nor following standard protocol and procedure during the process and that this led to air being introduced into O[....]'s venous system;

10.4 Had the defendant's employees acted appropriately, the injury would have been avoided in that O[....] would not have suffered a venous air embolism with a resultant cardiovascular collapse and O[....] would not have sustained a hypoxic brain injury which led to her disabilities.

10.5 The injury could have been avoided had the defendant's employees acted appropriately."

[9] Despite these matters so listed as having to be proven, the facts were largely common cause by the time that the trial commenced. I do not repeat in full the common cause facts. In short, O[....] was born healthy on 18 June 2014, at the normal time (a full-term birth), with normal birth weight, with normal Apgar scores (a discussion of which is not necessary in this judgment), and reflecting the indicators of a healthy baby. On 20 June 2014 O[....] was

diagnosed with neonatal jaundice on, and the initial treatment began. In short, O[....] received phototherapy, intravenous infusion of Neonatalyte, and antibiotics. She made good progress in the days that followed. The medical experts identified no indication of neurological impairment prior to the events of 24 June 2014.

[10] The defendant admitted a few matters in an amended plea delivered shortly before the trial, on 2 July 2021:

[10.1] The defendant admitted that it had a duty of care to both O[....] and the plaintiff in terms of Section 27(1) of the *Constitution of the Republic of South Africa*, 1996;

[10.2] The defendant admitted that the nursing staff at the Dr George Mukhari Hospital were employed by the Department of Health of the Gauteng Provincial Government, and acted in the course and scope of their employment;

[10.3] The defendant admitted that the defendant, the nursing staff at the Dr George Mukhari Hospital were under a legal duty to exercise the degree of skill and care which could reasonably be expected of a nurse in the prevailing circumstances.

[11] Against this background of the matters requiring proof by the plaintiff, the events of 24 June 2014, as they unfolded, must be assessed. I quote admitted paragraphs in the particulars of claim:

"*4.21. O[....] was taken over by the night staff and was noted to be alert and responding to stimuli and sucking well from her mother. The intravenous infusion was no longer in situ and was to be re-inserted. A unit of red blood cells was to be transfused after the re-insertion of the intravenous line, and a professional nurse was notified about the intravenous line that had to be re-inserted.*

4.22. At 20h30 the intravenous line was re-inserted on the left arm and an intravenous infusion of Neolyte erected. At 20h33 O[....] had difficulty breathing and had to be resuscitated. She was taken to the NICU and actively resuscitated by Dr Nkomo. She was not breathing spontaneously; she was bradycardic, and adrenaline was

administered. At 09h00 she was intubated and put on a ventilator. Her condition was noted as critically ill.

4.23. *O[....] was extubated at 02h00 on 25 June 2014 and supplemental oxygen via nasal prongs was administered. She developed seizures at 00h00 on 25 June 2014. Dr Nkomo noted on 25 June 2014 that she displayed a decerebrate posture, fisting and increased tone*."

[12] The defendant admitted that upon discharge on 18 July 2021, abnormal neurological signs persisted and that on 7 February 2019, Dr Malan Van Rensburg, a neuro-radiologist conducted an MRI of O[....]'s brain and concluded that the appearance of her brain was consistent with the established stage of a severe partial prolonged perinatal hypoxic ischemic injury to the brain of a full-term infant.

[13] The plaintiff submitted expert reports by the following medical expert witnesses who did not testify: Dr M van Rensburg (neuro-radiologist), Dr L R Murray (obstetrician and gynaecologist), Prof D du Plessis (nursing expert), Prof J Smith (neonatologist), Dr G S Gericke (geneticist), and Dr M Lippert (paediatrician and paediatric neurologist). The defendant submitted expert reports by the following witnesses who did not testify: Dr T Kamolane (radiologist), Dr A Mathatha-Cruywagen (obstetrician and gynaecologist), Dr K T Mathiva (Neonatologist), Dr C Harris (nursing expert), Dr V R Mogashoa (paediatric neurologist), Dr W N Kganane (paediatric intensivist), Dr N L Bhengu (geneticist), Dr S C Nyoka-Mokgalong (specialist anaesthetist).

[14] The parties agreed that the discovered documents contained in the trial bundle would serve as evidence at the trial and that the documents constitute *prima facie* proof of the truth of their content. The parties further agreed that the facts agreed upon as recorded in the joint minutes between the various medical experts served as formal admissions of those agreed facts in terms of section 15 of the *Civil Proceedings Evidence Act*, 25 of 1965.

[15] Reverting to the pleadings, the plaintiff pleaded that the attending nurse, who re-inserted the intravenous line on 24 June 2014, failed to ensure that it was done in a safe and professional manner. Amongst other grounds of

negligence, it was pleaded that she introduced free air into the venous system of O[....] upon re-insertion of the drip, failed to ensure that no free air was trapped in the intravenous line prior to insertion thereof, and failed to expel all air from the intravenous line, and failed to follow protocol for the safe insertion of a peripheral venous line.

[16] What do the facts show? The common case facts are that O[....] was in a stable and healthy state before the intravenous line was inserted, suffered a cardiovascular collapse within three minutes thereafter. In the absence of evidence by the nurse, there is no direct evidence about the manner in which the line was inserted and the procedure which was followed. There is no evidence by any medical expert of any other probable cause of the cardiovascular collapse, other that the introduction of air into the vein at the time of insertion of the intravenous line.

[17] I need not deal with this agreed evidence at any length. The radiologists (Dr van Rensburg and Dr Kamolane) agreed that the MRI pattern is consistent with a mixed (combined partial prolonged and acute profound) hypoxic ischemic injury in a full-term infant. They agreed that the MRI study suggests that it is unlikely that genetic disorders caused O[....]’s brain damage, and that inflammatory or infective causes are also unlikely as causes of O[....]'s brain damage. The paediatric neurologists (Dr Lippert and Dr Mogashoa) agreed that O[....]'s impairments were caused by hypoxia during the cardiorespiratory arrest. The intensivists (Prof Coetzee and Dr Mokgalong) agreed that the overwhelming probability is that the circulatory collapse which occurred, and which resulted in the brain injury, was the result of venous air embolism.

[18] The paediatricians and neonatologists (Prof Smith and Dr Mathiva) agreed on a number of matters, without formulating a joint formulation of the matters they agreed upon. As such, Prof Smith stated that the probable cause for the sudden unexpected catastrophic collapse was a venous air embolism, and Dr Mathiva stated that it was possible. Prof Smith stated that venous air embolism may have caused an air-block in the heart, causing cardiac output failure and circulatory insufficiency and shock. Dr Mathiva stated that this

cannot be ruled out. Prof Smith stated that the failure to ensure that no air is introduced upon the insertion of an intravenous line is negligent and directly led to the cardiogenic collapse of O[....]. Dr Mathiva stated that the failure to ensure that no air is introduced upon insertion of an intravenous line is negligent and could be a possible cause of the cardiogenic collapse. Prof Smith recorded that the outcome of cerebral palsy is directly related to probable acute venous air embolism which entered the cerebral circulation; this air embolism probably occurred as a consequence of inadequate "*priming*" of the peripheral venous line of air by the nursing sister who inserted it when the baby was re-dripped. Dr Mathiva recorded that this is a possible cause that cannot be ruled out, as the deterioration occurred after peripheral line insertion. Peripheral acquired venous air embolism is reasonably preventable if a correct protocol for inserting an infusion is followed.

[19] In so far as the defendant's liability might not have been evident from the common cause facts, the plaintiff led expert evidence by two witnesses. The witnesses' expertise was admitted.

[20] The first witness was Dr Du Plessis-Faurie, a Neonatal Nursing Consultant, who testified that the probabilities are that the nurse who re-inserted the intravenous line on 24 June 2014 did not follow the generally accepted procedure during the insertion of the line. She testified that due to this failure, air remained in the line, which then ended up in O[....]'s bloodstream and caused an acute air embolism. She testified about the guidelines that nursing staff must follow when inserting intravenous therapy to ensure that no air is introduced into the venous system during the process. The failure to ensure that no air is introduced upon the insertion of an intravenous line is a failure to apply the standard of care which is generally and reasonably expected of a nurse working in a neonatal ward in a South African hospital. She was not cross-examined.

[21] The second witness was Prof A Coetzee, Specialist Anaesthetist. He testified that in view of the close temporal relationship between the insertion of the new intravenous line, the acute collapse of the baby, and the absence of a

reasonable alternative explanation for the collapse, a venous air embolism is the most probable explanation for the collapse of the baby resulting in the brain injury. (I did find his sketches most helpful.) There is no other alternative explanation for the incident which caused the cardiac arrest and subsequent brain injury. He testified that very health care practitioner is aware of the risk of introducing air intravenously into the venous system. The prevention of air entrapment is a common exercise which every health care worker must apply. He testified that the introduction of air into the vein at the time of insertion of an intravenous line was probably due to a failure by the nurse involved to follow the generally accepted protocols and procedures, and a failure to act in accordance with the generally accepted reasonable standard of care which should be adhered to by a nurse. His evidence was not challenged, although it was put to him that the duty of medical staff to expel all air from the intravenous line before insertion is so basic an obligation, that one could assume that it was done. He disagreed with such an assumption.

[22] The defendant led no evidence and did not advance any explanation for the injury suffered by O[....].

[23] The plaintiff discharged this onus. As formulated by the plaintiff, on a balance of probabilities:

> "*11.17.1 O[....] had no neurological impairment prior to the collapse on 24 June 2014;*
>
> *11.17.2 Upon the re-insertion of the intravenous line at around 20h30 on 24 June 2014, air was introduced into her venous system by the nurse who re-inserted the line;*
>
> *11.17.3 The nurse who inserted the line did not follow the generally accepted protocols and procedures, as a result of which air entered the line and the bloodstream;*
>
> *11.17.4 The introduction of air was negligent and could have been avoided had the proper procedure for the insertion of the line been followed;*
>
> *11.17.5 The air that was introduced into O[....]'s venous system caused an acute air embolism which led to a total respiratory and cardiac arrest;*

11.17.6 *O[....] sustained a severe hypoxic ischemic brain injury during and as a result of the collapse;*

11.17.7 *After the collapse O[....] was diagnosed with HIE Grade II and developed a neonatal encephalopathy which was present for days after the incident;*

11.17.8 *The HIE and encephalopathy led to the development of cerebral palsy and other disabilities as set out in the particulars of claim now present in O[....];*

11.17.9 *Had it not been for the negligence of the defendant's employee in introducing air into the venous system, O[....] would not have sustained the injury."*

[24] Accordingly I make the following order:

1. The defendant is held liable for 100% of the plaintiff's proven or agreed damages in her representative capacity as mother of the minor child, O[....] T[....] M[....] who was born on 18 June 2014, suffered as a result of the injury and the consequent conditions as pleaded in paragraph 6 of the amended particulars of claim (which amended particulars of claim were uploaded onto Caselines on 29 June 2021), but subject thereto that the manner in which this liability will be discharged will be determined at the *quantum* trial;

2. The defendant is ordered to pay the plaintiff's party and party costs on the High Court scale, as agreed or taxed, up to date of this order, which costs will include but will not be limited to:

    a. The reasonable costs consequent upon the obtaining of the medico legal reports and expert summaries, attendance on settling joint minutes and the reasonable qualifying fees (if any) of:

        i. Dr M Van Rensburg, radiologist;

        ii. Dr L R Murray, obstetrician and gynaecologist;

        iii. Prof Du Plessis, nursing expert;

        iv. Prof J Smith, neonatologist;

v. Prof A Coetzee, specialist anaesthetist;

vi. Dr A S Du Plessis-Faurie, neonatal nursing consultant;

vii. Dr M M Lippert, paediatric neurologist;

viii. Dr G S Gericke, paediatrician and geneticist

of whom the plaintiff has given notice in terms of the provisions of Rule 36(9)(a) and (b).

b. The costs consequent upon the employment of two counsel, one of whose fees will be allowed on the scale of senior counsel.

3. The plaintiff's taxed or agreed party and party costs shall be paid into the trust account of the plaintiff's attorney, Joseph's Incorporated, details of which are as follows:

NAME:	JOSEPH'S INC, TRUST ACCOUNT
BANK NAME:	RMB PRIVATE BANK, JOHANNESBURG
ACCOUNT NO:	[….]
BRANCH NO:	261-251
REF:	M. JOSEPH/IS/M374

4. The following provisions shall apply regarding the determination and payment of the plaintiff's abovementioned taxed costs:

a. the plaintiff's attorney shall timeously serve the notice of taxation on the defendant's attorneys of record;

b. the plaintiff's attorney shall allow the defendant 30 (THIRTY) calendar days to make payment of the taxed costs from date of settlement or taxation thereof;

c. should payment of the plaintiff's taxed or agreed costs not be effected timeously, the plaintiff will be entitled to recover interest at the mora interest rate, calculated from the 31st calendar day, after

the date of the Taxing Master's allocatur, or after the date of settlement of costs, up to the date of final payment.

_____

DP DE VILLIERS
ACTING JUDGE OF THE HIGH COURT
GAUTENG DIVISION OF THE HIGH COURT, PRETORIA

Delivered: This judgment was prepared and authored by the Judge whose name is reflected and is handed down electronically by uploading it to the electronic file of this matter on CaseLines. The date for hand-down is deemed to be 17 August 2021.

Heard on: 19 July 2021

Delivered on: 17 August 2021 by uploading on CaseLines

APPEARANCES

On behalf of the Plaintiff:	Adv NGD Maritz SC
	Adv MM Lingenfelder SC
Instructed by:	Joseph's Inc.
On behalf of the Defendant:	Adv M Mokadikoa-Chauke SC
	Adv GDM Dube
Instructed by:	State Attorney Pretoria