

Final working version 28th June 2018 (for Adv SH Singh)

INDEPENDENT MEDICO-LEGAL REPORT:

MY REFERENCE: P8 (2018)

***Forensic medical analysis of the death of:
Dr H M Haffejee 03rd August 1977***

by Dr S R Naidoo

Independent Forensic Pathologist

DATED: 28th June 2018



REPORT:

INDEPENDENT FORENSIC MEDICAL ANALYSIS

My Ref: P8 (2018)

A: CASE DETAILS

1. Death of (Dr) Hoosen Mia Haffejee (date of death: 03rd August 1977)

B: INSTRUCTION

2. Instructions received from the National Prosecuting Authority (Priority Crimes Litigation Unit - Advocate S H Singh): To study the medical evidence of the original inquest in the above matter and provide an independent forensic medical opinion on manner, circumstances and cause of the death, and on any pertinent aspects thereto.

C: CONSULTANT CREDENTIALS (See Annexure at end of this Report)

3. It is relevant to state herewith, amongst other aspects of my professional practice, that wound identification, forensic pathology, death investigation, and injury reconstruction to context, are in the domain of forensic pathology and within my expertise.
4. I am the sole author of this report and am wholly responsible for its contents.

D: SOURCES OF INFORMATION FOR OPINION

5. Several documents were obtained from Advocate S H Singh, and amongst these the following were pertinent for study:
 - a. The original autopsy report text of Professor Isidor Gordon (electronic).
 - b. Original text of reports by Drs S R Albrechtsen and Jorgen Voight (Copenhagen, Denmark), on behalf of Amnesty International, dated 19th October 1977 and 24th February 1978 (electronic).
 - c. Original text of two reports by Mr D H Biggs, orthopaedic surgeon (Pietermaritzburg), both dated 11th November 1977 (electronic).

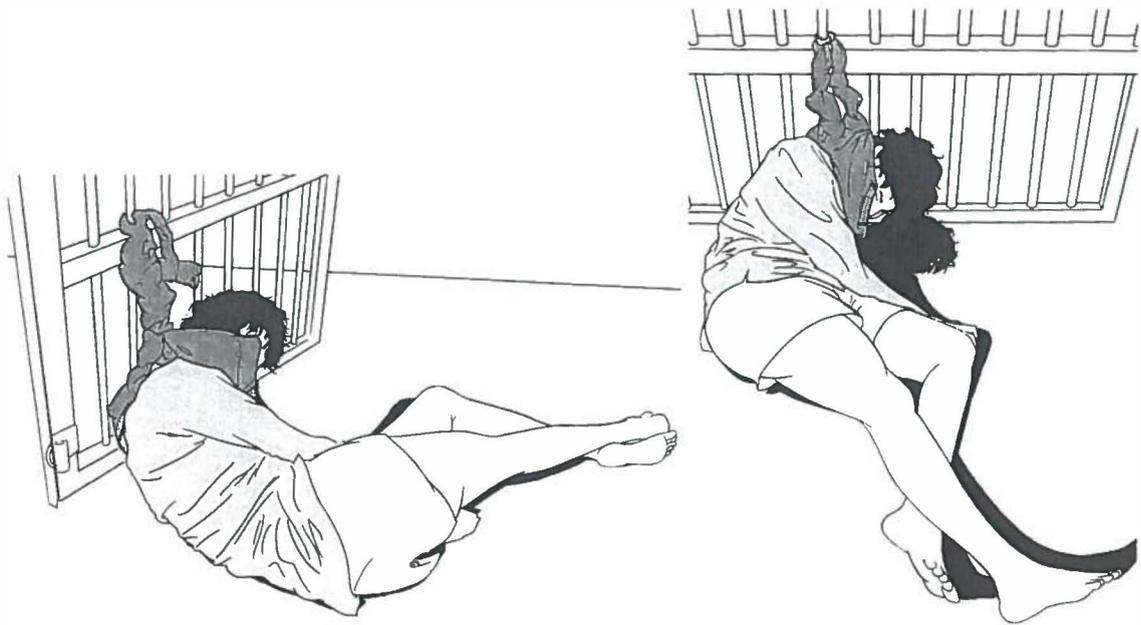
- d. A page of body diagrams with handsketch of injuries, source unspecified (but reference is made to a Dr Theo Lourens as illustrator in the Truth Commission Special Report - see 6b below - by the brother of the deceased Mr Yusuf Haffajee).
 - e. Transcript of original inquest records, pages 1 to page 349, and sixteen (16) pages of the inquest judgment dated 15th March 1978 (hardcopy).
 - f. Thirty-one (31) photographs in black/white (electronic), of which sixteen (16) were also in hardcopy colour print.
6. The following online sources were briefly read for background:
- a. TRC_JB Taylor (accessed 09 March 2018):
http://www.saha.org.za/collections/AL2878/b015750214_2.htm
 - b. Truth Commission Special Report - Human Rights Violation Hearing – 56205 (accessed 09 March 2018); URL:
<http://sabctrc.saha.org.za/hearing.php?id=56205&t=&tab=hearings>

E: METHODOLOGY IN ANALYSIS OF INJURIES

7. In the records above, the medical evidence of the various medical experts who submitted reports and/or testified at the original inquest, was studied. The original text of the reports of Professors Laubscher, Shapiro and Simson, and Drs Gluckman and Lorentz, which had been referred to in the original inquest transcript), were *not* available. The testimony of police officers were read but not analysed, except where the medical expert testimony made reference to the same.
8. The posture of the deceased as seen on four original (4) photographs of the scene, taken (from inside the police cell) whilst the body was still attached by the ligature at the scene of death was reconstructed by photography using a volunteer (writer's technician) and then into three artist's sketches¹, as below in Figures 1 to 3. The death scene report findings by Professor Gordon, and which was in general keeping but of less detail than that with the body posture in the original photographs, were also applied to the illustrations.

¹ Drawing by artist Mr Liam Naidoo, under guidance by this writer.

9. The writer's technician, under guidance by the writer, recreated the posture in the original photographs, using a loose "ligature" on a security door at the precise height of 56,5 cm above the floor (as provided by engineer Mr T Moodley who visited the police cell) and photographs were taken by the author, and from which the images were drawn by the artist.

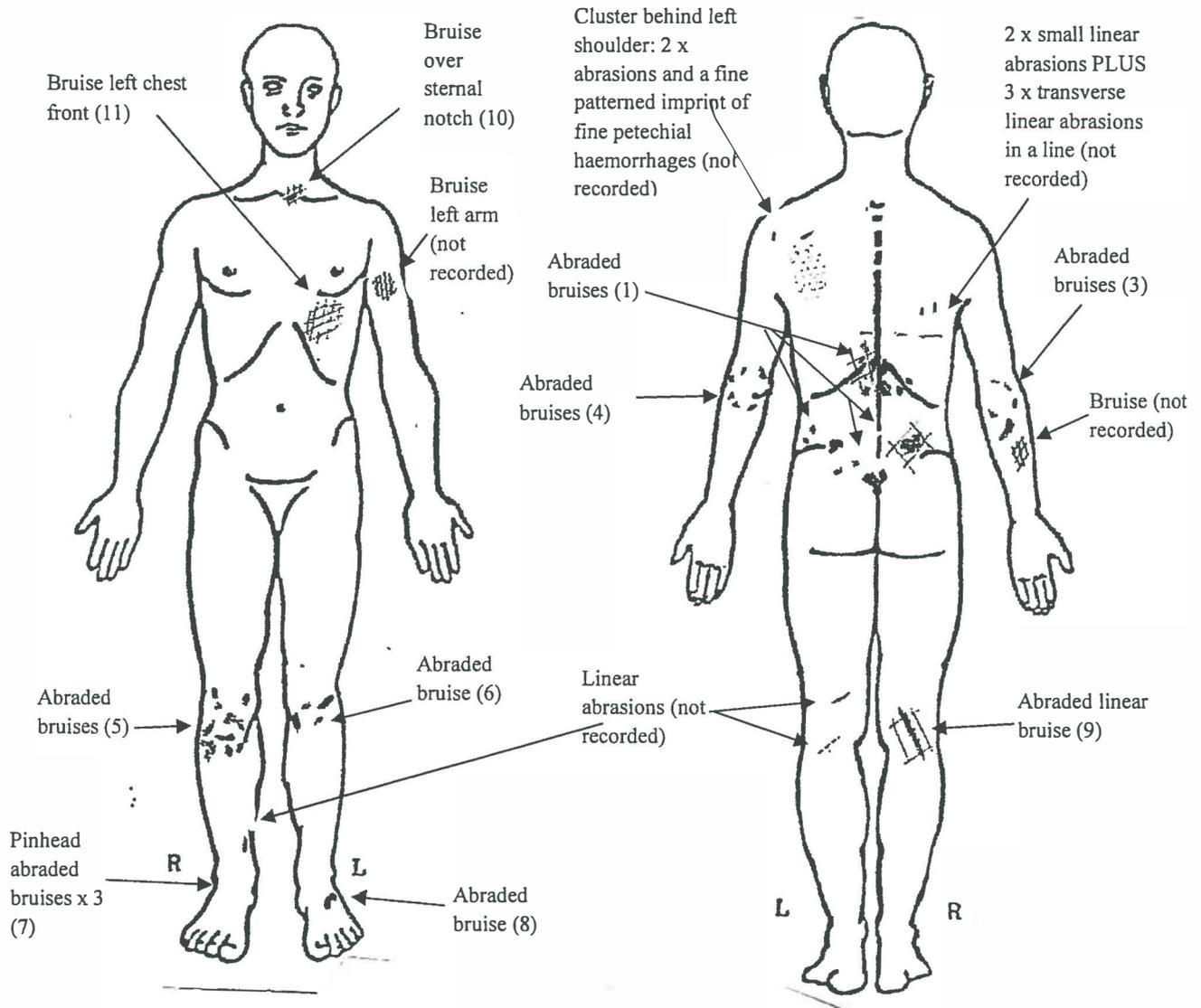


Figures 1 & 2: View from the right side and front of the body respectively



Figure 3: View from the left side of body;

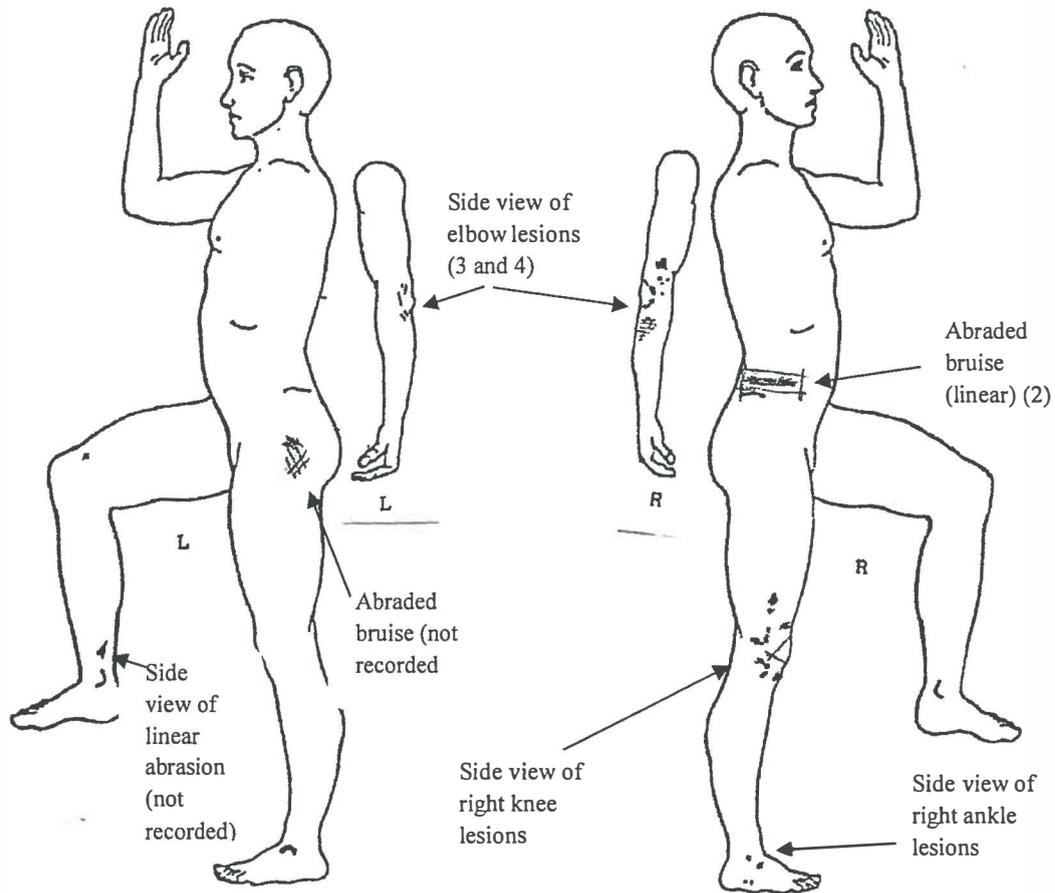
10. The assumption made is that this was the body posture as seen when the death was first discovered, with cell door having been opened to allow for entry and photography; this is, however, subject to verification if possible.



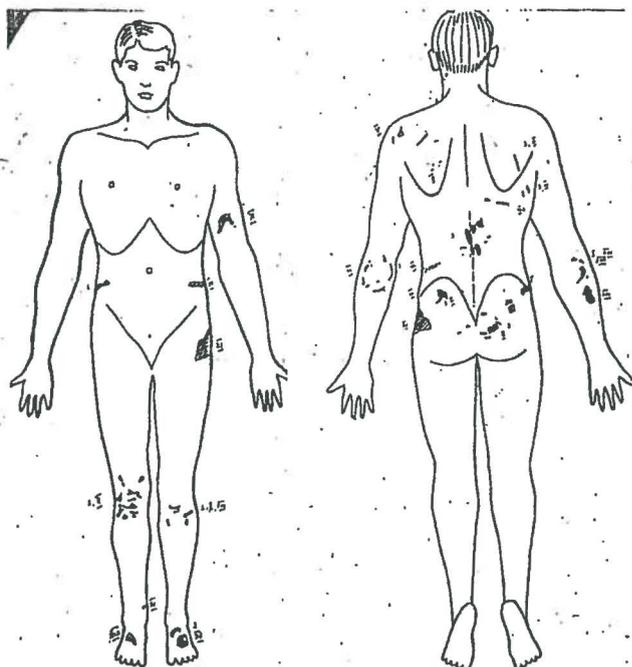
Figures 4 & 5 Author's reconstructions of injuries from text & images

11. The injuries of the post-cranial portion of the body were independently reconstructed onto diagrams by myself and annotated, above and below (Figures 4 & 5 and 6 & 7), as seen on the photographs and as per their descriptions on the autopsy report, taking into consideration their scale and position as best as possible. The numbers in the annotations are as recorded in the text by Professor Gordon. The annotations without numbers are unrecorded by Professor Gordon, but are seen on the photographs and which after careful examination do not appear to be post-autopsy artefact.

12. The sketches above and below (Figs 4 to 7) by the author were created without consideration of the sketches by Dr Theo Lourens below; the similarity of the appearances of the wounds is notable.



Figures 6 & 7 Author's reconstructions of injuries from text & images



Figures 8 & 9 (left):

***Images by Dr Theo Lourens
of the injuries of the body
surface***

F: LIMITATIONS

13. The limitations to this analysis included:

- a. Lack of the original pathologist's own sketches and/or own photographs taken at the autopsy in optimal settings of light, resolution, and preparation of surface for photography.
- b. The lesions in the autopsy report are grouped together in broad clusters, with a lack of clear detail, and some injuries seen on the images but which are not described, and only a small number of wounds in general are given actual dimensions.
- c. Specifically, a noticeable gap in detail exists in critical text descriptions and sketches or photographs, with minimal details in the oral testimony as well, about the precise nature, appearances and dimensions of the **ligature imprint around the neck** and the associated crescentic and linear abrasions. There is little for any external observer to conceive spatially (3-dimensionally) and in pattern how these injuries had actually looked around the neck in order to appropriately evaluate their significance and interpretation.

G: GENERAL OBSERVATIONS ON SCENE

14. From the original images, the position of the securing of the deceased body on the cell bars was noted to have been to the movable grille door itself, and not to any fixed portion of the cell bar frame.

15. The ligature appears from the original photographs to have been that of the trouser legs, with the trouser crotch region at the front of the neck, then around the neck on both sides, and then meeting at the right rear of the neck where it begins a continual tight twist up to the crux of the bar at which it is fastened, possibly by being knotted with a handkerchief. The direction of the twist appears to be towards the deceased's right side, in that, had the deceased twisted the ligature himself, he would have had to continuously turn to his *right side* in twisting.

16. The posture described by Prof Gordon (and seen to a small extent in the poor quality original scene images) suggests that the body weight was largely borne by the left hip and buttock and possibly slightly by the left elbow and forearm. It would appear that the left shoulder was off the floor but the back of the same shoulder was propped against the grille frame. The head appears to have been found “flexed over the ligature” as found by Prof Gordon, bent to the left side.
17. The left upper limb (which is not clearly seen on the original images) from Prof Gordon’s description (his Annexure D) would appear to have been lying somewhat straight alongside the left flank of the body with the left wrist “under the middle of the left thigh”.
18. The development of rigor mortis was noted to be *complete* in all muscles of the upper and lower limbs, and the only “slightly mobile” joint described was the left knee.

H: OBSERVATIONS ON GENERAL AUTOPSY FINDINGS

19. The colour photographs of the body were those that were taken *after* the post-mortem had been conducted, possibly in the premises of an undertaker.
20. The injuries to the body (numbers 1 to 9 of Annexure “B” of Prof Gordon’s report) described all the external injuries as being **abraded bruises**. Number 10 to 12 of the same describe subcutaneous (under the skin) **bruises**. These may on the descriptions and on the appearances on the photographs be confidently determined to be those caused whilst the deceased was alive, and Professor Gordon’s histopathology acceptable conclusion (Annexure “E”) of wound aging between 4 to 12 hours prior to death is in keeping with my opinion of their approximate age.
21. The scalp bruising (“extravasation of blood”) described in paragraph 5 of the autopsy report is observed all over the top and sides of the calvarium (skull-cap). This is an extensive and confluent bruising, and in the absence of a bleeding disorder must be evaluated as significant blunt force injury to the whole of the

scalp, and more probably by multiple impacts at multiple positions than a single or a few isolated impacts, all whilst still alive.

22. The “extravasation of blood in the substance of the mesentery” (paragraph 18 of autopsy report) is that of a mesenteric contusion, from a significantly heavy blunt blow to the abdomen.
23. The rest of the internal autopsy findings are not notable. The tissue sections examined histologically were evidently those taken from those five (5) areas of the body which were “cut out” as seen in the post-autopsy photographs – the lower back, the right hip posteriorly, right hip laterally, rear of right knee and front of right knee. Gordon’s Annexure E also indicates that additional sections from the midline incision as it passed across the sternal notch bruise, and from the left chest front bruise, had been taken.

I: OBSERVATIONS/ANALYSIS OF THE NECK LESION



Figure 10: Right front of neck

The (cut-out) image at left is the only (and clearest) image that shows the neck region, as a portion of the right side of the front of the neck.

24. A short section of what would appear to be a broad band of transverse (horizontal) and slightly crescentic bright-red lines across the upper side of the neck can be seen (as well as a coarse post-mortem resutured incision under the jaw from the midline of the chest).

25. Whilst Gordon does not provide any objective measurements with reference to distances of the ligature imprint from fixed reference points at the neck, the general description and appearance on the photograph suggests also a slight angulation upwards as the ligature imprint is seen passing to the rear of neck, and perhaps with a slight suspensory lift as the twisting traction appears to have been effected at the right side of rear of neck. The tongue-tip protrusion (paragraph 8 of autopsy report) is consistent with such backward-directed neck traction.
26. The varying thickness of the ligature imprint, ranging between 1 cm and 1,5 cm as reported by Professor Gordon, is in my view in keeping with a twisted and crumpled and unevenly-thick piece of fabric used as a ligature, and unlike that produced when a uniformly-wide woven ligature such as a piece of rope is used. The red lines on the neck appear as a pattern of somewhat parallel linear portions of crimped skin with shallow furrows of pallor and thin ridges of congestion and haemorrhage, as may be seen with a tightly-scrunched portion of a garment used as a tight neck ligature and which pinches the skin into folds. Professor Gordon described these (in his Annexure A, paragraph 3) as “alternating regions of pallor and colouration”. It is unclear whether his description of the “horizontal and crescentic” abrasions in his paragraph 4 of Annexure “A” refers to the same, but I am of the impression that it does.
27. It was not unusual to find, as in most cases of such neck constriction, as in the second-to-last paragraph of Prof Gordon’s Annexure “A” that there was no subcutaneous haemorrhage (vital reaction) on dissection immediately under the ligature imprint depression, nor as in its last paragraph the localised small subcutaneous bruising of the inner right side of mandible and anterior right sternomastoid muscle, nor the lack of injury to the hyoid bone and adjacent cartilages, in many cases of suicidal hanging. The *red lines* (my description) of the skin underlying the ligature are superficial *intradermal* congestion and extravasation of blood due to the compression of the skin ridges, and do not by themselves necessarily imply that the deceased was alive when the ligature was applied, as this can occur before or after recent death.

J: DISCUSSION OF FINDINGS

28. This discussion below sets out the chief inferences drawn from the study, and explains the basis for them.

29. Physique of deceased:

The physique of the deceased of the deceased should be described as “lean” or “underweight”, rather than “moderately well-developed” as described by Prof Gordon. There is discordance in the original autopsy report where it refers to the body as “moderately well developed”, at 1,75 metres in height and 49 kg in weight. The body mass index (BMI) is calculated from these levels to be 16, which generally at a level below approximately 18,5 is categorised as *underweight*. This is also quite apparent from the body physique on the photography. The deceased was clearly a lean person. The normal body mass index should be between 18,5 and 24,9 according to the Pasco JA, et al, quoting the WHO as the technical information source².

30. Time sequence

The deceased was arrested at around 08h00 on the 02nd August 1977, a Tuesday, and was declared dead by Professor Isidor Gordon, Chief Government Pathologist for Durban, at 06h59 on the 03rd August 1977, a period in the detention of the police of almost 23 hours.

31. Time of death:

- a. The writer differs, although marginally but which may be of significance, with Professor Gordon’s finding that death had occurred at the period of 3 to 4 hours before his examination at around 07h00 on the morning of the discovery of the death. Death occurred, in my opinion, very likely *earlier* than that estimated by the chief pathologist. Due to its very technical nature, the calculation is explained in the attached separate Annexure A which should be read (at this juncture) with this section.

² World Health Organization: Obesity: Preventing and Managing the Global Epidemic. Report of a WHO Consultation on Obesity. 1998, Geneva: WHO, Geneva, 3–5 June 1997. WHO Technical Report Series 894

- b. In my opinion, it can be argued as a strong possibility that death could have occurred several more hours earlier than the period Professor Gordon offered. It can be quite possible that *death could more possibly have had occurred at around midnight*, or either just before or just after, rather than at around 3 am or 4 am (3 to 4 hours before 07h00).
- c. The inquest record (see judgment) accepted that Constables Naude and Madlala saw the deceased alive at 3 am, and at 4 am was seen dead. This evidence is seriously doubted and requires to be challenged.

32. The cause of death, which was the consequence of pressure upon the neck, should be considered the consequence of a neck *constriction* rather than actual *hanging* by suspension.

The anatomical mechanism of death, that of the consequences of pressure upon the neck, is not disputed. It is important, however, that the precise mechanism of the neck pressure be recognised. This might be strictly academic but could be of relevance to the dynamics of how the neck pressure was applied by either the deceased himself or by an/other individual/s. To refer to the cause of death as “...hanging” would be strictly incorrect and a misnomer, in that it misleads to the impression that death was caused by body weight suspension, irrespective whether self-inflicted or homicidal.

The appearances of the posture on the original images, and from reconstruction, is that there was hardly any suspensory traction whatsoever. Whilst it quite possible and often seen that persons may suicidally string themselves up to hang from low positions where their bodies are still in contact with the ground (the concept³ of partial suspension), in the case of this death from the original images, the body bulk does not appear create a significant enough weight traction, as the torso weight is chiefly borne by the left buttock and left flank on the ground and possibly the left elbow, with the rear of left shoulder supported against the grille door. The left shoulder appears to be just off the ground.

³ See Knight's Forensic Pathology 3rd Edition (2004), pages 384-385, and Dolinak, Matshes and Lew's Forensic Pathology (2005) page 213.

In this instance any traction, if at all, was in my opinion caused largely by the angulated tilt-weight of the head as it lies slumped on its left side, and such traction would likely be only created once the deceased became unconscious upon airway compromise, causing his body to slump when the body tone is lost, continuing largely into a post-mortem occurrence when primary muscular flaccidity occurs immediately upon death several minutes after airway obstruction.

The evidence and appearances are that there was a tight constriction of the neck by the “coiled” ligature. The coil suggests that the twist was to the right side from the point of suspension. In other words the deceased, if he had spun himself around to twist the ligature, would have turned himself towards his own right side.

More correctly, the cause of death should have been described as a neck constriction by ligature, or ligature strangulation. The mechanism of death in this context and dynamics would likely have been airway compromise, as testified to by Dr Biggs. The clamped tip of the tongue found at the autopsy would suggest that the mechanism was that the glottic/pharyngeal apparatus and base of tongue was pulled/clamped up against the roof of the mouth and palate, effecting airway obstruction and causing the tip of tongue to stick out between the teeth and lips. The effects of venous or arterial obstruction would have been minimal if any, whilst the possibility of terminal reflex neurogenic cardiac arrest cannot be excluded; these mechanisms will not affect the dynamics reconstructed here.

33. It cannot be decisively determined whether this was a self-inflicted neck constriction or whether it was caused by another party.

Having considered above the matter of *hanging* versus *constriction* of the neck, it is however clear that the magistrate (in his judgment) appears to have accepted self-infliction alone, the video having “left no doubt that the deceased would have been well capable of bringing about his own death in the way postulated by Brigadier Neethling”.

Brigadier Neethling testified as to a video reconstruction made by himself of how the deceased could have self-tied the ligature around the grille and his neck and

effected the twist. The evidence of the video is not available, and it would appear from the original inquest transcript that the video evidence was not interrogated in any way. The brigadier's recorded oral testimony appeared to have concentrated largely upon the evidence of blood on the clothing.

In my opinion, it *is* possible that the neck constriction could have been self-applied by the deceased himself. It may be possible that the tight twist of the ligature could have been effected by the action of the deceased by spinning upon the floor whilst in a sitting position with the ligature around the neck and fastened to the grille bars.

Alternatively, the actions of an/other person/s in applying the constriction by ligature *cannot be discounted on the basis of the objective evidence alone*, the written and oral testimony of witnesses aside, as the setting does allow for the possibility that the deceased could have been strangled by another person from the outside of the cell and using the grille bars as leverage for the twist of the ligature.

These possibilities, however, must be considered, perhaps by a reconstruction, at the scene itself, as the scenario might in reconstruction be shown to be either possible or difficult to execute.

34. Throttling (that is, manual strangulation by hands or fingers) is not suggested by the findings of the neck examination.

Whilst it is not possible to fully evaluate the neck surface injury (ligature imprint mark and abrasions) due to the inadequacy of description of the findings, nevertheless, the descriptions of the internal neck findings do *not* suggest throttling by the hands.

35. It cannot be resolutely determined that the ligature constriction of the neck was caused either before or after death, or before or after a state of unconsciousness, had occurred.

Except for two areas of bruising (no dimensions given) in the neck at the inner aspect of the right side of mandible and anterior edge of right sternomastoid

muscle (last paragraph, Annexure “A” by Prof Gordon), there is no other vital reaction observed. Despite Prof Gordon’s assertion that he “completely excluded” “the possibility of post-mortem hanging” (see magistrate’s judgment), I would beg to differ. On the basis of the recorded objective observations at the autopsy, it may be well argued that these two haemorrhages could possibly be post-mortem occurrences, as much as it could be peri-mortem or ante-mortem occurrences, and that one cannot be conclusive on such an opinion.

36. The age of the injuries

Histological examination of the wounds by Prof Gordon indicate a period of survival since injury of between 4 and 12 hours. According to the magistrate’s judgment the medical experts for the family, Drs Gluckman and Lorentz (?Lourens) concurred with the experts for the police (unspecified in judgment) that the lesions of the back and iliac crest were between 8 and 24 hours old, but “at least one other injury was ... 4 to 6 hours before death”. I am of the opinion that the slightly-differing opinion was (and is) not so much of critical significance as there is always some variability depending upon what morphological change viewed by each expert under the microscope was considered as more pertinent than others, the reference source or authority used, and individual experience. I am of the view that what was of most value was the coinciding overlap of the estimates, in that the general wound age was at its widest range between 6 and 24 hours, but that there was concurrence of a period of between 8 and 12 hours.

37. The injuries of the body surface, and of the scalp (head), chest and mesentery in particular, must be, at risk of being emotive in this description, considered as having been due to significant forces, and physically incapacitating, and that the deceased would have likely been in noticeable pain and in marked distress for the entire period after the injuries; if they were inflicted in stages then the deceased’s condition would have been progressively worsened.

- a. GENERAL: I would respectfully disagree with the chief government pathologist Prof Gordon that expressions of gradation of severity by pathologists are not of value to the court, and I would argue that forensic pathologists should provide guidance to interpretation of injuries in objective and non-emotive ways. Most forensic pathologists would be

confident in specifying that the skin injuries in this case are significant and were caused by more than moderate degrees of force, and that the scalp, and thoraco-abdominal wounds were caused by an even more significant degree of force, as would be sustained in impacts that can normally fracture bones or rupture an organ or intestine.

- b. HEAD: The scalp injury “extravasation” of blood into the sub-aponeurotic space are *haemorrhages* and may simply be called *deep scalp bruising*. From the description it is “extensive” and extends from the front to the rear at the top and sides. The description is insufficient to indicate that it was one or more localised impacts; however, in the absence of a bleeding disorder such extensive bruising suggests the more likely possibility that it was several physical impacts that rendered the bruising as a confluent (merged, or blended into one) set of haemorrhages. The effects of such injury would have included either unconsciousness, or a lowered state of consciousness, or a drowsiness as seen with concussion. In my opinion, such injury would have been extremely unlikely to have been caused by impacts against the body or interior structures of a vehicle simply in forcibly bundling the deceased into the vehicle. (I am not aware or knowledgeable of the effect of tugging on the long hair of any deceased, but I draw attention to this in passing, during this injury analysis).

The magistrate in his judgment referred to the deceased having a “...thick mop of hair which could have a cushioning effect on any blow ...” – this must be understood as the cushioning effect spreading and diffusing the blow and which may render the identification of a specific wound pattern more difficult, but does not necessarily reduce the effect of the impact of the blow in causing the neurological injury to the brain.

- c. CHEST: Thoracic contusion (bruising): this is indicative of a heavy blow to the left lower front of the chest and would have been intensely painful. Such blows would also cause the person to be “winded” and breathless and doubled-up in pain. Such a blow could have also caused a cardiac

“concussion” (called *commotio cordis*). It must be noted that such a cardiac impact has been reported in many cases to be able to cause, by the impact to the heart muscle and its electrical impulse conduction system, sudden death by the trigger of a sudden abnormal cardiac rhythm where an actual bruise to the heart itself may not be visible to the naked eye.

- d. ABDOMINAL: Mesenteric “extravasation” of blood indicates a bleeding or contusion (bruising) – this can only occur with a *massive* abdominal blow, possibly by a fist or kick – this would have been seriously incapacitating in that the deceased would at that stage of the injury and for some time thereafter would have been “doubled-up” in pain and not only just “winded”, and been unable to sit or stand up or walk upright, and might have had restricted abdominal movements and respiration due to mesenteric irritation. The blow itself to cause a mesenteric contusion would have been of such force that it would have been potentially dangerous and even life-threatening had the spleen or liver been damaged. It is also somewhat surprising that the pathologist did not described any free bloodstaining in the peritoneal cavity. It must be borne in mind that, if there was no observable bleeding, death may have supervened very shortly after the abdominal impact, and this may actually suggest that the death may have been caused by the chest/abdominal impacts themselves.
- e. GENERAL EFFECTS OF THE INJURIES: With regard to the injuries, individually and together, the deceased could not reasonably have been found to be simply awake and normal when and if the cell was last visited for inspection at 03h00 as testified, for at that stage he must have had sustained all the observed injuries. Had such visit been undertaken by an objective inspector of his condition would have found an injured person in noteworthy pain and distress if he was still alive after these injuries, if not in a state of unconsciousness from the head injury, or already deceased.

If it was whilst being interrogated in the office, as testified to by the two security policemen Lt Taylor and Captain Du Toit, that the injuries were

sustained, the deceased would probably have been unlikely to have been able to retain an upright or even seated position depending upon the injuries received at that time.

As it is clear, objectively from the histology in any event, that the injuries were between 4 to 12 hours old, the police officers in the charge officer at the period when the deceased was booked into the cell when it is alleged it had been, should have been able to discern that the arrestee was in pain and distress, even if his injuries were not immediately evident to their view.

38. Bodily injuries not in keeping with “bundling” into vehicle

- a. Despite the reluctance of the state pathologist Professor Gordon to express a view (in oral testimony) as to whether the bodily injuries were in keeping with pushing and shoving of the deceased into the vehicle, I am of a confident and resolute opinion on this aspect and which coincides with those of Dr Biggs and Dr Lourens.

- b. Regarding the post-cranial bodily injuries, as with the potentially serious head and thoraco-abdominal injuries described earlier above, these are not in keeping with the nature of injuries that are usually seen where the moving body comes into contact with protuberances, (unless the body was attendant with a high velocity momentum and dynamics such as in a motor vehicle collision, where the injuries would have quite strikingly other characteristics). These injuries of this deceased were more the consequence of specific and directed, multiple and discrete, impacts to those areas.

39. The deceased was to a great probability unclothed at the time of the injuries, particularly the limb and surface injuries, and at some point before his death walked barefooted.

Whilst it cannot be confirmed with certainty, there arises the distinct and, in my opinion, a greater likelihood that the deceased was unclothed rather than clothed at the time of sustaining many or most of the peripheral limb injuries seen on the body. The clothing appear to be light-coloured, and testimony of the police was

that the suit he wore was a powder-blue colour (see page 25 of inquest transcript - Lt JB Taylor).

With light-coloured clothing, bleeding is easily noticed. Abrasions, while they do not bleed excessively, ooze blood or bloody fluid (bloodstained tissue fluid/serum) and will be noticed through a shirt, underpants, and then through light clothing. It is uncertain whether the clothing were stained in any way with blood (not described at the autopsy or scene examination by Prof Gordon), and in addition, Brigadier Neethling could not establish firmly the presence of blood on the clothing samples tested (page 43/44 of transcript) - it is indeed strange that this may have been. One possibility to consider is that if the deceased was re-clothed (re-dressed) after death and when the bloodstains were somewhat dried-out, the clothing might not have become stained.

In his report of the body examination, Dr Biggs also noted distinctly “grimy soles of feet” whereas the rest of the body surface appeared clean. This is unlikely to be the consequence of the post-mortem procedure but indicates that the deceased had at some earlier point just before his death walked barefoot.

40. The bodily (post-cranial) injuries would have been clearly noticeable over those areas which were injured, had they been present and exposed to view at any point during the stage of live-state detention.

According to the general medical consensus then, the wounds should all have been present on the body during the several stages of interrogation of the deceased, and at the time of being booked in at the charge office, and at all times during his confinement in the cell, if the times as testified to by the police officers are indeed correct.

Whilst on the photographs the images might appear slightly darker than immediately after death as is usual due to the darkening by desiccation of skin wounds after death, their intensity of appearance and colour are such that they even in a lighter state of colour would definitely have had been visible if these areas were exposed to view.

41. The injuries to the limbs appear to suggest a distinct *pattern*, or *set of patterns*, and the possibilities of restraint, constraint, and specific natures of infliction are raised.

- a. The clustering and pattern of discrete lesions (injuries) around the elbows and knees and at the low back cannot escape notice. They indicate a specific directed application of force to these individual areas, strongly suggesting some sort of restraint or constraint by an object or surface with a patterned configuration of its surface. It is difficult to reconcile with usual causes of injury. A sort of shackling or restraint of the deceased whilst alive must be considered, as this fit in with a fixation of the elbows and knees especially.
- b. Dr Biggs suggested in his findings that some of the focal and discrete lesions had the appearances of the surfaces of skin when compressed as by lead seals onto string or wire. I suggest that the appearances of localised abrasions appear as such at drying out after death. When caused by specifically-shaped objects that have a well-demarcated pattern, an “indentation” and parchmenting of the skin surface and a neatly-circumscribed appearance may be seen.
- c. I thus cannot exclude the use of specifically-shaped electrodes as a possibility. It is unknown whether the pathologists for the different parties at the original inquest considered the possibility of application of electrical injury, or whether the pathologists looked for the same on the histology slides. In any event, from the text of the histology, electrical injury features do not immediately arise. However, I do not think that this possibility can be easily dismissed.
- d. Some individual abraded bruises suggest a crescentic shape, such as the injury over the outer aspect of the left foot, and certain lesions around the elbows and knees. This will indicate a pattern or shape of the object that struck the body.

- e. The injuries to the lower back are also in a “recessed” area which does not reconcile with incidental injuries of falls, or sliding on the ground, or in the case of being forced into the interior of a vehicle. They are separate discrete lesions, some of which also appear to constitute a circular interrupted cluster pattern as seen at the elbow and right knee.
- f. At the rear on the images of the left knee are visible two parallel linear marks (contusions or abrasions). Thus, there are linear injuries to the rear of *both* knees, whereas the autopsy report only records that at the right knee. This is quite unusual in such recessed position of the body, and is not easily reconcilable with bumping into objects during walking or with falls to the ground. Whilst injuries at the very back of the knees might be the result of impacts to that area, this is distinctly unusual to find in “normal” cases of assault and/or falls and/or accidental injury and raises the possibility of some nature of full-body suspension or similar - the possibility of the deceased having been suspended by a piece of wood under his knees must be borne in mind.
- g. The oval area of a fine set of petechiae at the rear of the left shoulder is an imprint contusion in a regular geometric pattern may be in keeping with an impact such as a fall against a similarly patterned surface, such as a firm textured carpet or stick-on carpet tile or similar. The possibility of a rubber sole of a shoe must also be considered. The pattern does not suggest that the fine fabric of the deceased’s shirt could produce the same. However, a *post-mortem* origin cannot be excluded.

42. The visible injuries alone may not necessarily indicate the full extent of physical impacts to the body; these would likely have been *more than the number of injuries visible*..

- a. It is important to recognise that in cases of injury, and especially as it applies to interpersonal violence, that the *threshold for visible wounding*⁴ is

⁴ In Knight’s Forensic Pathology, 3rd Edition (2004), Saukko and Knight refer to what I have called *threshold of visible wounding* in their page 136 where the authors say that “the body usually absorbs such forces...”

only exceeded at a certain degree of force applied, and lesser degrees may escape visible injury. In other words, if one sees a number of individual injuries on a body and which if can be counted as individual applications of force, the number of actual total impacts to the body may be considerably greater in number.

- b. Whereas I have counted between 60 to 75 individual discrete lesions (wounds) on the body, many of these are in clusters and groups which may have occurred in single impacts, or with repeated impacts to the same body part, with some patterned surface/s or object/s; thus the precise number of wounds may not be as relevant, save for acknowledgement of their multiplicity.

43. Professor Gordon's views (and the magistrate's conclusions) on the cause of death:

I point out that Professor Gordon's view that the "death was consistent with hanging and that the injuries other than those attributable to the ligature in no way contributed to the death" (see magistrate's judgment) is most troubling to accept. This is also read with the magistrate's conclusion that "(m)ost of the injuries were of minor nature except ... scalp and mesentery and ... sternum, ribs and loins ..."

The seriousness of the bodily surface injuries after they were inflicted, were such that the deceased would, in my opinion, have been in a state of intense pain and distress, likely unable to remain upright. With the head trauma there is a significant possibility that he could have been already in a stunned stupor or concussion, if not already unconscious. With the chest and abdominal trauma, the deceased would have been doubled-up in pain, breathing with difficulty, if not in a state of sudden cardiac death from a cardiac concussion.

and it is only when the intensity of the applied force exceeds the capability of the tissues to adapt or resist that a wound or injury occurs".

K: CONCLUDING STATEMENTS

44. The inferences I have made in the Discussion (Section J above) represent the main conclusions of this injury and pathology analysis.

45. I add the following general concluding statements:

- a. The “motive to kill” (see magistrate’s judgment) is not necessarily or always seen in cases of death in detention and during interrogation by the police or any other detaining agency. In many custodial deaths, death may occur inadvertently and unexpectedly as a result of the extreme nature of restraint, or pressure, or stress, or to the effect of application of some force or injury, where homicide was not intended. In many such cases it is often strongly suspected, upon medical investigation, that the death would have been sudden and unexpected, for example if an asphyxial force, or electrical injury, or some effect of bodily injury, was caused by an unrestrained, or unchecked, application of the same.
- b. Had the deceased created himself the ligature and the method of ligature constriction of the neck, he would have been at the time of the death almost undoubtedly in such significant pain and distress that this possibility is questionable and must be seriously challenged and, if accepted, was likely an impelled or driven suicide on the basis of the prevailing and prodigious distress suffered.
- c. In my opinion, and based upon the injuries and their effects, the deceased was to a great possibility either unconscious or actually dead at the time of the ligature constriction and serious consideration must be given to the possibility of a homicidal slinging of the body in the position he was found.



Dr S R Naidoo

DATED: 28 June 2018

END OF REPORT

ANNEXURE A: Notes on the Estimation of Time Interval Since Death

The available facts:

1. The reading of 35,3 degrees C at 07h00 (06h59) at the scene examination was approximately 1,7 degrees lower than the assumed normal rectal temperature of 37 (36,9) degrees C. (Although the magistrate in his judgment referred to Professor Gordon taking the temperature of the “surrounding atmosphere”, there is no record of that, thus the temperatures in August in Durban being generally around 24 degrees high and 13 degrees low, average 18,5⁰ C is taken). The deceased was lightly clothed and had a lean body. The cell was indoors and unlikely to have been draughty and had likely a cold cement floor.

Calculations from body (core) temperatures

2. Professor Gordon used the rectal temperature readings he obtained (see page 10 of original inquest transcript) to arrive at his estimate, in probably the following way. There is much usage in my calculations of assumptions and averages and considering the exceedingly variable environmental conditions that affect the estimation of the post-mortem interval (PMI) this is not precise at all, but I wish to draw to what should be considered a reasonable conclusion at the end of this Annexure.
3. In theory, it is assumed that the normal core temperature is 37⁰ C, and that there is a post-death temperature plateau (before a temperature gradient for heat loss had been established) of between 1 and 2 hours, and that in general terms the steady post-mortem temperature drop after the plateau is $\pm 1^0$ C per hour for its linear phase.
 - a. Using the first temperature reading of 35,3⁰ C, this is a 1,7 degrees drop, and which needs to be added to the plateau extrapolating this to between 2,7 to 3,7 hours since death, close enough to Prof Gordon’s estimate of 3 to 4 hours and where the time of death was suggested at between **3 and 4 am** that morning. This method takes no other environmental and other conditions into consideration and is a very rough rule-of-thumb process.

b. If, however, using the same method we use the temperature reading of 27 degrees C at 10h23 at the beginning of the autopsy, ten degrees lower than normal (it would appear that this was done at the morgue just at the beginning of the autopsy), the rough calculation would be 11 to 12 hours since death, bringing the time of death to between **10h23pm and 11h23 pm** on the night before. Bearing in mind a general principle is that the further away from death the temperature is measured, the greater the possible permissible variation of time of death. This rough method demonstrates the wide variability and the unreliability of this method.



4. There are a few other more “stringent” methods employed when the clothing and air movement is considered, particularly the use of Henssge’s normogram method. The writer employed the method using both Prof Gordon’s first and second temperature measurements with an average environmental temperature of 18,5 °C (bearing in mind that night temperatures may be lower than the average between lowest and highest) and arrived at the results of 7 and 11 hours after death respectively. The method employed can be supplemented by necessary supporting documentation.

Rigor mortis



5. The state of the full development of rigor mortis indicates a useful impression of the time of death. Gordon’s finding (his Annexure “D”) was that rigor mortis “had developed completely” and “fully developed” in all of the joints he described. Complete rigidity happens between **6 to 10 hours of the death** - mean at 8 hours - according to Henssge (1995)⁵ is his well-researched text. This would translate to death at **between 9pm and 1am** that night.

Hypostasis (Lividity)

6. [The distribution of lividity (Annexure D, last two paragraph of its first page) can be considered in keeping with with the assumed posture when the body was discovered. This is generally less helpful in time of death estimation.]

⁵ Henssge C, et al. *The Estimation of the Time Since Death in the Early Postmortem Period* (1995): Edward Arnold. Table 5.3 and text on page 152.

Discussion

7. Whereas body temperature is said to be very useful in estimation of the time of death in the *early* interval after death, the results of calculations from the two temperature readings are remarkably distant from each other. The wide variations in the reading indicate the inexact process of calculations from temperature, inspite of its apparent reliability. This is largely because the temprature gradient is not a linear one. This writer is also of the opinion that the multiple factors that usually affect temperature changes may particularly have been at play at the second temperature reading with the various manipulations, the body having been removed from the cell, placed within a vehicle, and then transported to the mortuary.

8. Given the above, the first temperature measurement in the cell should be considered more reliable of the PMI (post-mortem interval) than the second. The sequence, nevertheless, of the onset and development of the rigor mortis is more regular and less affected (although *not unaffected*) by environmental variations. In my own experience at scenes of death, I would use the time-onset of rigor mortis to help support or narrow if possible the calculation based upon temperature.

9. Assuming that the fully-developed rigor mortis at *at least* 6 hours after death can be held to be relatively more reliable, the PMI since death might be closer to at least 6 to 7 hours prior to Prof Gordons examination at just before 07h00 that morning. It is therefore my sustained impression that the actual time of death might have been more likely under-estimated by Prof Gordon. In my opinion, therefore, death probably occurred just before or after midnight that first night of the detention.

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Dr S R Naidoo

ANNEXURE B: Credentialing and Contact Details of Consultant

i. **Full names:** Segaran Ramalu Naidoo (known as Steve), Identity number 590406 5042 08 5.

ii. **Contact details:**

OFFICE: 25 Seatide Drive, Seatides, Tongaat Beach 4399, Durban, South Africa

BUSINESS POSTAL: PO Box 95, Desainagar 4405, Durban, South Africa

Tel: +27 32 943 1143; Mobile: +27 82 904 1143; Fax: +27 86 530 6604

E-mail: stevenaidoo11@gmail.com

iii. **Registration:** Medical practitioner registered as a specialist forensic pathologist in the category of independent practice with the Health Professions Council of South Africa (HPCSA) and with registration number MP 0248118.

iv. **Qualifications:** *MB ChB (Natal); D For Med (SA); MMed Forensic Pathology (Natal); MFFLM*

v. **Experience:**

- a. As at 2018 I have had 35 years of experience in forensic pathology, 30 of which in public service work, 27 years of which as a specialist, at least 18 years of which in the joint academic staff of the University of KwaZulu-Natal (UKZN), and for 8 years (2003 – 2011) of which as Associate Professor and Head of the UKZN Department of Forensic Medicine.
- b. I have worked in the medical and forensic teams for the United Nations in Bosnia, Croatia and Kosovo with the International Criminal Tribunal for the former Yugoslavia for several years past.
- c. Other affiliations: Honorary Research Fellow at the School of Law at UKZN until January 2016.
- d. Founding Chair of the African Network (now Society) of Forensic Medicine (ASFM).
- e. Member of the Forensic Advisory Board of the International Committee of the Red Cross (ICRC).

- f. Member (current) of the ministerial National Forensic Pathology Services Committee (NFPSC) of the National Department of Health, South Africa.
- g. Expert listed on the Justice Rapid Response organisation, serving on technical teams of Experts on (1) the AU Commission of Inquiry into South Sudan (2014) and (2) on another confidential 2017 Independent Forensic Investigation (IFI) by the International Humanitarian Fact Finding Commission (IHFFC) based in Geneva, Switzerland.

vi. **Other pertinent academic aspects –**

I have been and currently still teach:

- a. Forensic medicine and pathology to undergraduates and post-graduates medical and law students.
- b. A module on Forensic Medicine to Masters of Law (LLM Medical Law) students at University of KwaZulu Natal.
- c. A programme on Understanding Medical Evidence in Sexual Assault to legal practitioners of Legal Aid South Africa.

I have written several journal articles and book chapters, including an article for The Encyclopaedia of Forensic and Legal Medicine (Elsevier). I am in the process of completing a court handbook for the interpretation of medical evidence in sexual contact cases for doctors and lawyers. I have attended and presented at multiple local, national, and international medical and forensic conferences and meetings.

- vii. **Current practice:** I currently am and have been in private/independent practice for my own account since March 2012. I have since been involved in working abroad for the United Nations and the African Union on technical expert teams, and for Amnesty International and other human rights organisations. I am a consultant for the National Prosecuting Authority in SA on several cases where investigations have been revived.

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REPORT:

INDEPENDENT FORENSIC MEDICAL ANALYSIS

My Ref: P8 (2018)

A: CASE DETAILS

1. Death of (Dr) Hoosen Mia Haffejee (date of death: 03rd August 1977)

B: INSTRUCTION

2. Instructions received from the National Prosecuting Authority (Priority Crimes Litigation Unit - Advocate S H Singh): To study the medical evidence of the original inquest in the above matter and provide an independent forensic medical opinion on manner, circumstances and cause of the death, and on any pertinent aspects thereto.

C: CONSULTANT CREDENTIALS (See Annexure at end of this Report)

3. It is relevant to state herewith, amongst other aspects of my professional practice, that wound identification, forensic pathology, death investigation, and injury reconstruction to context, are in the domain of forensic pathology and within my expertise.
4. I am the sole author of this report and am wholly responsible for its contents.

D: SOURCES OF INFORMATION FOR OPINION

5. Several documents were obtained from Advocate S H Singh, and amongst these the following were pertinent for study:
 - a. The original autopsy report text of Professor Isidor Gordon (electronic).
 - b. Original text of reports by Drs S R Albrectsen and Jorgen Voight (Copenhagen, Denmark), on behalf of Amnesty International, dated 19th October 1977 and 24th February 1978 (electronic).
 - c. Original text of two reports by Mr D H Biggs, orthopaedic surgeon (Pietermaritzburg), both dated 11th November 1977 (electronic).

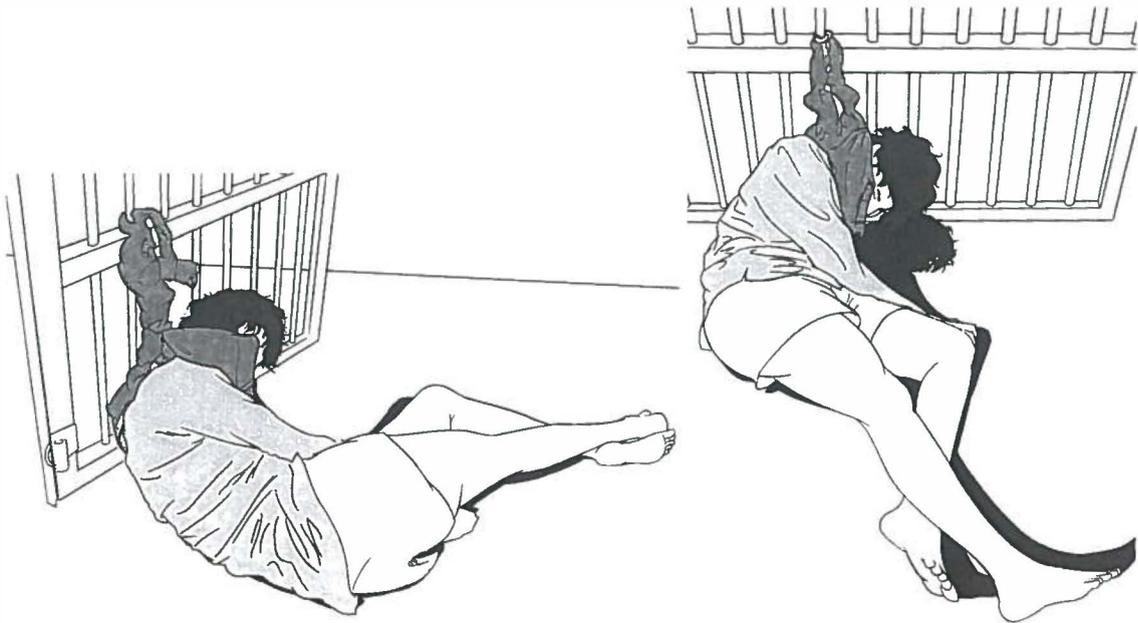
- d. A page of body diagrams with handsketch of injuries, source unspecified (but reference is made to a Dr Theo Lourens as illustrator in the Truth Commission Special Report - see 6b below - by the brother of the deceased Mr Yusuf Haffajee).
 - e. Transcript of original inquest records, pages 1 to page 349, and sixteen (16) pages of the inquest judgment dated 15th March 1978 (hardcopy).
 - f. Thirty-one (31) photographs in black/white (electronic), of which sixteen (16) were also in hardcopy colour print.
6. The following online sources were briefly read for background:
- a. TRC_JB Taylor (accessed 09 March 2018):
http://www.saha.org.za/collections/AL2878/b015750214_2.htm
 - b. Truth Commission Special Report - Human Rights Violation Hearing – 56205 (accessed 09 March 2018); URL:
<http://sabctrc.saha.org.za/hearing.php?id=56205&t=&tab=hearings>

E: METHODOLOGY IN ANALYSIS OF INJURIES

7. In the records above, the medical evidence of the various medical experts who submitted reports and/or testified at the original inquest, was studied. The original text of the reports of Professors Laubscher, Shapiro and Simson, and Drs Gluckman and Lorentz, which had been referred to in the original inquest transcript), were *not* available. The testimony of police officers were read but not analysed, except where the medical expert testimony made reference to the same.
8. The posture of the deceased as seen on four original (4) photographs of the scene, taken (from inside the police cell) whilst the body was still attached by the ligature at the scene of death was reconstructed by photography using a volunteer (writer's technician) and then into three artist's sketches¹, as below in Figures 1 to 3. The death scene report findings by Professor Gordon, and which was in general keeping but of less detail than that with the body posture in the original photographs, were also applied to the illustrations.

¹ Drawing by artist Mr Liam Naidoo, under guidance by this writer.

9. The writer's technician, under guidance by the writer, recreated the posture in the original photographs, using a loose "ligature" on a security door at the precise height of 56,5 cm above the floor (as provided by engineer Mr T Moodley who visited the police cell) and photographs were taken by the author, and from which the images were drawn by the artist.

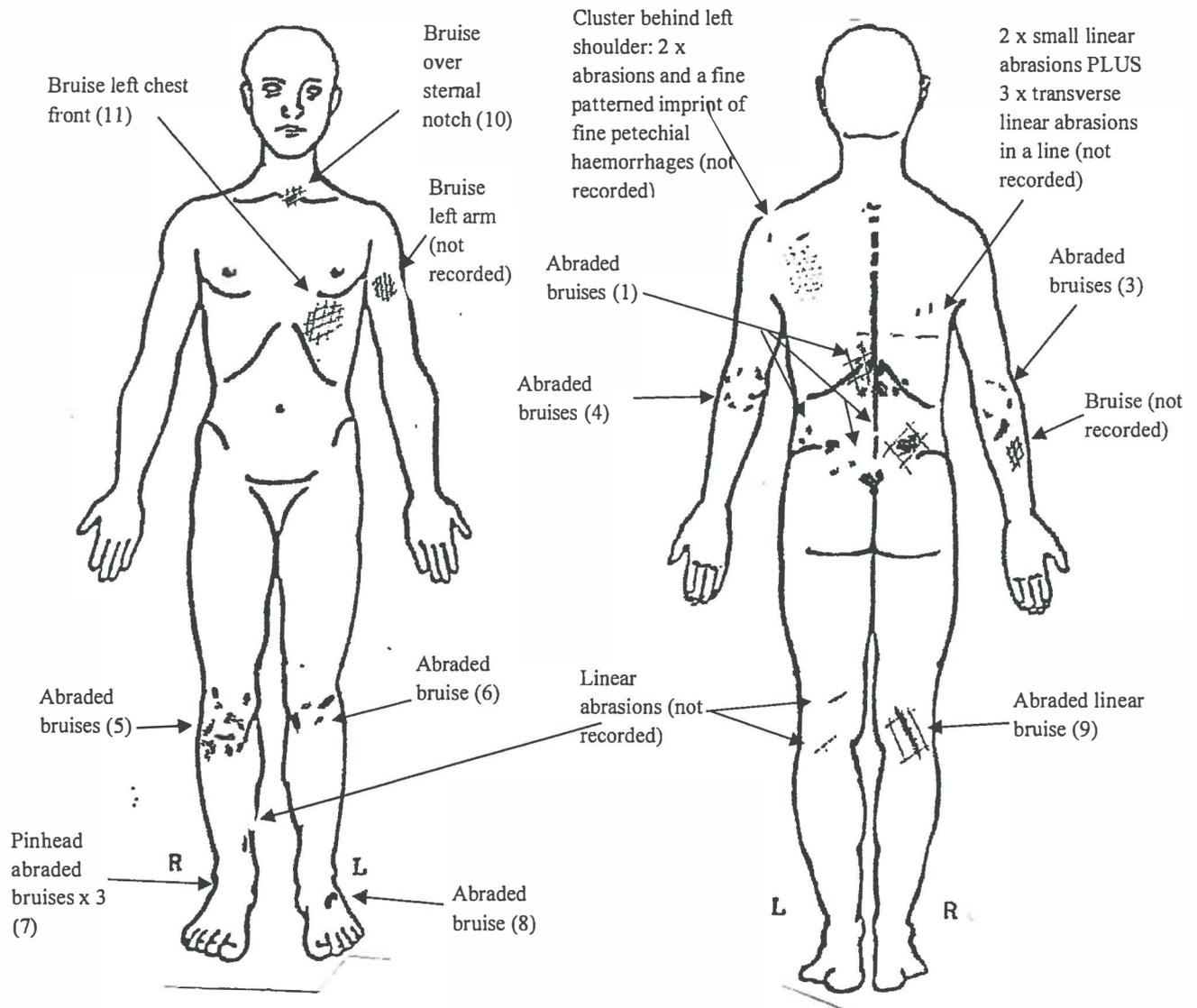


Figures 1 & 2: View from the right side and front of the body respectively



Figure 3: View from the left side of body;

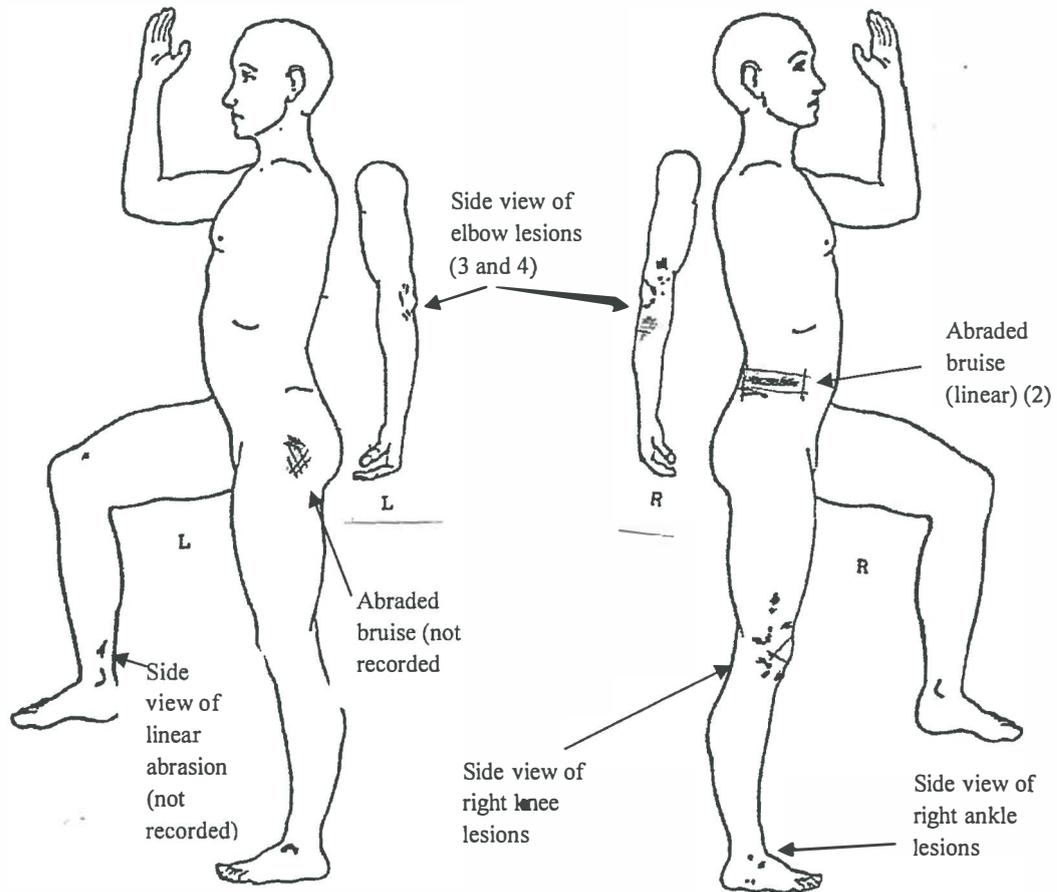
10. The assumption made is that this was the body posture as seen when the death was first discovered, with cell door having been opened to allow for entry and photography; this is, however, subject to verification if possible.



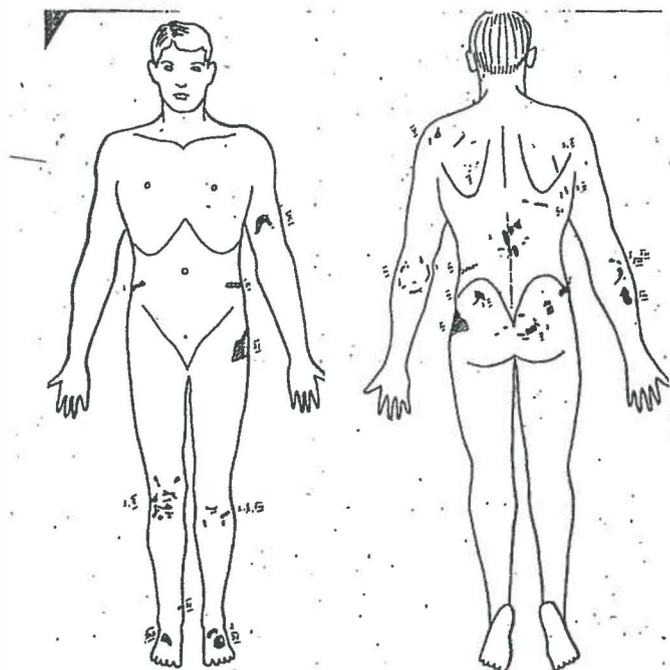
Figures 4 & 5 Author's reconstructions of injuries from text & images

11. The injuries of the post-cranial portion of the body were independently reconstructed onto diagrams by myself and annotated, above and below (Figures 4 & 5 and 6 & 7), as seen on the photographs and as per their descriptions on the autopsy report, taking into consideration their scale and position as best as possible. The numbers in the annotations are as recorded in the text by Professor Gordon. The annotations without numbers are unrecorded by Professor Gordon, but are seen on the photographs and which after careful examination do not appear to be post-autopsy artefact.

12. The sketches above and below (Figs 4 to 7) by the author were created without consideration of the sketches by Dr Theo Lourens below; the similarity of the appearances of the wounds is notable.



Figures 6 & 7 Author's reconstructions of injuries from text & images



Figures 8 & 9 (left):

***Images by Dr Theo Lourens
of the injuries of the body
surface***

F: LIMITATIONS

13. The limitations to this analysis included:

- a. Lack of the original pathologist's own sketches and/or own photographs taken at the autopsy in optimal settings of light, resolution, and preparation of surface for photography.
- b. The lesions in the autopsy report are grouped together in broad clusters, with a lack of clear detail, and some injuries seen on the images but which are not described, and only a small number of wounds in general are given actual dimensions.
- c. Specifically, a noticeable gap in detail exists in critical text descriptions and sketches or photographs, with minimal details in the oral testimony as well, about the precise nature, appearances and dimensions of the **ligature imprint around the neck** and the associated crescentic and linear abrasions. There is little for any external observer to conceive spatially (3-dimensionally) and in pattern how these injuries had actually looked around the neck in order to appropriately evaluate their significance and interpretation.

G: GENERAL OBSERVATIONS ON SCENE

14. From the original images, the position of the securing of the deceased body on the cell bars was noted to have been to the movable grille door itself, and not to any fixed portion of the cell bar frame.

15. The ligature appears from the original photographs to have been that of the trouser legs, with the trouser crotch region at the front of the neck, then around the neck on both sides, and then meeting at the right rear of the neck where it begins a continual tight twist up to the crux of the bar at which it is fastened, possibly by being knotted with a handkerchief. The direction of the twist appears to be towards the deceased's right side, in that, had the deceased twisted the ligature himself, he would have had to continuously turn to his *right side* in twisting.

16. The posture described by Prof Gordon (and seen to a small extent in the poor quality original scene images) suggests that the body weight was largely borne by the left hip and buttock and possibly slightly by the left elbow and forearm. It would appear that the left shoulder was off the floor but the back of the same shoulder was propped against the grille frame. The head appears to have been found “flexed over the ligature” as found by Prof Gordon, bent to the left side.
17. The left upper limb (which is not clearly seen on the original images) from Prof Gordon’s description (his Annexure D) would appear to have been lying somewhat straight alongside the left flank of the body with the left wrist “under the middle of the left thigh”.
18. The development of rigor mortis was noted to be *complete* in all muscles of the upper and lower limbs, and the only “slightly mobile” joint described was the left knee.

H: OBSERVATIONS ON GENERAL AUTOPSY FINDINGS

19. The colour photographs of the body were those that were taken *after* the post-mortem had been conducted, possibly in the premises of an undertaker.
20. The injuries to the body (numbers 1 to 9 of Annexure “B” of Prof Gordon’s report) described all the external injuries as being *abraded bruises*. Number 10 to 12 of the same describe subcutaneous (under the skin) *bruises*. These may on the descriptions and on the appearances on the photographs be confidently determined to be those caused whilst the deceased was alive, and Professor Gordon’s histopathology acceptable conclusion (Annexure “E”) of wound aging between 4 to 12 hours prior to death is in keeping with my opinion of their approximate age.
21. The scalp bruising (“extravasation of blood”) described in paragraph 5 of the autopsy report is observed all over the top and sides of the calvarium (skull-cap). This is an extensive and confluent bruising, and in the absence of a bleeding disorder must be evaluated as significant blunt force injury to the whole of the

scalp, and more probably by multiple impacts at multiple positions than a single or a few isolated impacts, all whilst still alive.

22. The “extravasation of blood in the substance of the mesentery” (paragraph 18 of autopsy report) is that of a mesenteric contusion, from a significantly heavy blunt blow to the abdomen.
23. The rest of the internal autopsy findings are not notable. The tissue sections examined histologically were evidently those taken from those five (5) areas of the body which were “cut out” as seen in the post-autopsy photographs – the lower back, the right hip posteriorly, right hip laterally, rear of right knee and front of right knee. Gordon’s Annexure E also indicates that additional sections from the midline incision as it passed across the sternal notch bruise, and from the left chest front bruise, had been taken.

I: OBSERVATIONS/ANALYSIS OF THE NECK LESION



Figure 10: Right front of neck

The (cut-out) image at left is the only (and clearest) image that shows the neck region, as a portion of the right side of the front of the neck.

24. .A short section of what would appear to be a broad band of transverse (horizontal) and slightly crescentic bright-red lines across the upper side of the neck can be seen (as well as a coarse post-mortem resutured incision under the jaw from the midline of the chest).

25. Whilst Gordon does not provide any objective measurements with reference to distances of the ligature imprint from fixed reference points at the neck, the general description and appearance on the photograph suggests also a slight angulation upwards as the ligature imprint is seen passing to the rear of neck, and perhaps with a slight suspensory lift as the twisting traction appears to have been effected at the right side of rear of neck. The tongue-tip protrusion (paragraph 8 of autopsy report) is consistent with such backward-directed neck traction.
26. The varying thickness of the ligature imprint, ranging between 1 cm and 1,5 cm as reported by Professor Gordon, is in my view in keeping with a twisted and crumpled and unevenly-thick piece of fabric used as a ligature, and unlike that produced when a uniformly-wide woven ligature such as a piece of rope is used. The red lines on the neck appear as a pattern of somewhat parallel linear portions of crimped skin with shallow furrows of pallor and thin ridges of congestion and haemorrhage, as may be seen with a tightly-scrunched portion of a garment used as a tight neck ligature and which pinches the skin into folds. Professor Gordon described these (in his Annexure A, paragraph 3) as “alternating regions of pallor and colouration”. It is unclear whether his description of the “horizontal and crescentic” abrasions in his paragraph 4 of Annexure “A” refers to the same, but I am of the impression that it does.
27. It was not unusual to find, as in most cases of such neck constriction, as in the second-to-last paragraph of Prof Gordon’s Annexure “A” that there was no subcutaneous haemorrhage (vital reaction) on dissection immediately under the ligature imprint depression, nor as in its last paragraph the localised small subcutaneous bruising of the inner right side of mandible and anterior right sternomastoid muscle, nor the lack of injury to the hyoid bone and adjacent cartilages, in many cases of suicidal hanging. The *red lines* (my description) of the skin underlying the ligature are superficial *intradermal* congestion and extravasation of blood due to the compression of the skin ridges, and do not by themselves necessarily imply that the deceased was alive when the ligature was applied, as this can occur before or after recent death.

J: DISCUSSION OF FINDINGS

28. This discussion below sets out the chief inferences drawn from the study, and explains the basis for them.

29. Physique of deceased:

The physique of the deceased of the deceased should be described as “lean” or “underweight”, rather than “moderately well-developed” as described by Prof Gordon. There is discordance in the original autopsy report where it refers to the body as “moderately well developed”, at 1,75 metres in height and 49 kg in weight. The body mass index (BMI) is calculated from these levels to be 16, which generally at a level below approximately 18,5 is categorised as *underweight*. This is also quite apparent from the body physique on the photography. The deceased was clearly a lean person. The normal body mass index should be between 18,5 and 24,9 according to the Pasco JA, et al, quoting the WHO as the technical information source².

30. Time sequence

The deceased was arrested at around 08h00 on the 02nd August 1977, a Tuesday, and was declared dead by Professor Isidor Gordon, Chief Government Pathologist for Durban, at 06h59 on the 03rd August 1977, a period in the detention of the police of almost 23 hours.

31. Time of death:

- a. The writer differs, although marginally but which may be of significance, with Professor Gordon’s finding that death had occurred at the period of 3 to 4 hours before his examination at around 07h00 on the morning of the discovery of the death. Death occurred, in my opinion, very likely *earlier* than that estimated by the chief pathologist. Due to its very technical nature, the calculation is explained in the attached separate Annexure A which should be read (at this juncture) with this section.

² World Health Organization: Obesity: Preventing and Managing the Global Epidemic. Report of a WHO Consultation on Obesity. 1998, Geneva: WHO, Geneva, 3–5 June 1997. WHO Technical Report Series 894

- b. In my opinion, it can be argued as a strong possibility that death could have occurred several more hours earlier than the period Professor Gordon offered. It can be quite possible that *death could more possibly have had occurred at around midnight*, or either just before or just after, rather than at around 3 am or 4 am (3 to 4 hours before 07h00).
- c. The inquest record (see judgment) accepted that Constables Naude and Madlala saw the deceased alive at 3 am, and at 4 am was seen dead. This evidence is seriously doubted and requires to be challenged.

32. The cause of death, which was the consequence of pressure upon the neck, should be considered the consequence of a neck *constriction* rather than actual *hanging* by suspension.

The anatomical mechanism of death, that of the consequences of pressure upon the neck, is not disputed. It is important, however, that the precise mechanism of the neck pressure be recognised. This might be strictly academic but could be of relevance to the dynamics of how the neck pressure was applied by either the deceased himself or by an/other individual/s. To refer to the cause of death as "...hanging" would be strictly incorrect and a misnomer, in that it misleads to the impression that death was caused by body weight suspension, irrespective whether self-inflicted or homicidal.

The appearances of the posture on the original images, and from reconstruction, is that there was hardly any suspensory traction whatsoever. Whilst it quite possible and often seen that persons may suicidally string themselves up to hang from low positions where their bodies are still in contact with the ground (the concept³ of partial suspension), in the case of this death from the original images, the body bulk does not appear create a significant enough weight traction, as the torso weight is chiefly borne by the left buttock and left flank on the ground and possibly the left elbow, with the rear of left shoulder supported against the grille door. The left shoulder appears to be just off the ground.

³ See Knight's Forensic Pathology 3rd Edition (2004), pages 384-385, and Dolinak, Matshes and Lew's Forensic Pathology (2005) page 213.

In this instance any traction, if at all, was in my opinion caused largely by the angulated tilt-weight of the head as it lies slumped on its left side, and such traction would likely be only created once the deceased became unconscious upon airway compromise, causing his body to slump when the body tone is lost, continuing largely into a post-mortem occurrence when primary muscular flaccidity occurs immediately upon death several minutes after airway obstruction.

The evidence and appearances are that there was a tight constriction of the neck by the “coiled” ligature. The coil suggests that the twist was to the right side from the point of suspension. In other words the deceased, if he had spun himself around to twist the ligature, would have turned himself towards his own right side.

More correctly, the cause of death should have been described as a neck constriction by ligature, or ligature strangulation. The mechanism of death in this context and dynamics would likely have been airway compromise, as testified to by Dr Biggs. The clamped tip of the tongue found at the autopsy would suggest that the mechanism was that the glottic/pharyngeal apparatus and base of tongue was pulled/clamped up against the roof of the mouth and palate, effecting airway obstruction and causing the tip of tongue to stick out between the teeth and lips. The effects of venous or arterial obstruction would have been minimal if any, whilst the possibility of terminal reflex neurogenic cardiac arrest cannot be excluded; these mechanisms will not affect the dynamics reconstructed here.

33. It cannot be decisively determined whether this was a self-inflicted neck constriction or whether it was caused by another party.

Having considered above the matter of *hanging* versus *constriction* of the neck, it is however clear that the magistrate (in his judgment) appears to have accepted self-infliction alone, the video having “left no doubt that the deceased would have been well capable of bringing about his own death in the way postulated by Brigadier Neethling”.

Brigadier Neethling testified as to a video reconstruction made by himself of how the deceased could have self-tied the ligature around the grille and his neck and

effected the twist. The evidence of the video is not available, and it would appear from the original inquest transcript that the video evidence was not interrogated in any way. The brigadier's recorded oral testimony appeared to have concentrated largely upon the evidence of blood on the clothing.

In my opinion, it *is* possible that the neck constriction could have been self-applied by the deceased himself. It may be possible that the tight twist of the ligature could have been effected by the action of the deceased by spinning upon the floor whilst in a sitting position with the ligature around the neck and fastened to the grille bars.

Alternatively, the actions of an/other person/s in applying the constriction by ligature *cannot be discounted on the basis of the objective evidence alone*, the written and oral testimony of witnesses aside, as the setting does allow for the possibility that the deceased could have been strangled by another person from the outside of the cell and using the grille bars as leverage for the twist of the ligature.

These possibilities, however, must be considered, perhaps by a reconstruction, at the scene itself, as the scenario might in reconstruction be shown to be either possible or difficult to execute.

34. Throttling (that is, manual strangulation by hands or fingers) is not suggested by the findings of the neck examination.

Whilst it is not possible to fully evaluate the neck surface injury (ligature imprint mark and abrasions) due to the inadequacy of description of the findings, nevertheless, the descriptions of the internal neck findings do *not* suggest throttling by the hands.

35. It cannot be resolutely determined that the ligature constriction of the neck was caused either before or after death, or before or after a state of unconsciousness, had occurred.

Except for two areas of bruising (no dimensions given) in the neck at the inner aspect of the right side of mandible and anterior edge of right sternomastoid

muscle (last paragraph, Annexure “A” by Prof Gordon), there is no other vital reaction observed. Despite Prof Gordon’s assertion that he “completely excluded” “the possibility of post-mortem hanging” (see magistrate’s judgment), I would beg to differ. On the basis of the recorded objective observations at the autopsy, it may be well argued that these two haemorrhages could possibly be post-mortem occurrences, as much as it could be peri-mortem or ante-mortem occurrences, and that one cannot be conclusive on such an opinion.

36. The age of the injuries

Histological examination of the wounds by Prof Gordon indicate a period of survival since injury of between 4 and 12 hours. According to the magistrate’s judgment the medical experts for the family, Drs Gluckman and Lorentz (?Lourens) concurred with the experts for the police (unspecified in judgment) that the lesions of the back and iliac crest were between 8 and 24 hours old, but “at least one other injury was ... 4 to 6 hours before death”. I am of the opinion that the slightly-differing opinion was (and is) not so much of critical significance as there is always some variability depending upon what morphological change viewed by each expert under the microscope was considered as more pertinent than others, the reference source or authority used, and individual experience. I am of the view that what was of most value was the coinciding overlap of the estimates, in that the general wound age was at its widest range between 6 and 24 hours, but that there was concurrence of a period of between 8 and 12 hours.

37. The injuries of the body surface, and of the scalp (head), chest and mesentery in particular, must be, at risk of being emotive in this description, considered as having been due to significant forces, and physically incapacitating, and that the deceased would have likely been in noticeable pain and in marked distress for the entire period after the injuries; if they were inflicted in stages then the deceased’s condition would have been progressively worsened.

- a. GENERAL: I would respectfully disagree with the chief government pathologist Prof Gordon that expressions of gradation of severity by pathologists are not of value to the court, and I would argue that forensic pathologists should provide guidance to interpretation of injuries in objective and non-emotive ways. Most forensic pathologists would be

confident in specifying that the skin injuries in this case are significant and were caused by more than moderate degrees of force, and that the scalp, and thoraco-abdominal wounds were caused by an even more significant degree of force, as would be sustained in impacts that can normally fracture bones or rupture an organ or intestine.

- b. HEAD: The scalp injury “extravasation” of blood into the sub-aponeurotic space are *haemorrhages* and may simply be called *deep scalp bruising*. From the description it is “extensive” and extends from the front to the rear at the top and sides. The description is insufficient to indicate that it was one or more localised impacts; however, in the absence of a bleeding disorder such extensive bruising suggests the more likely possibility that it was several physical impacts that rendered the bruising as a confluent (merged, or blended into one) set of haemorrhages. The effects of such injury would have included either unconsciousness, or a lowered state of consciousness, or a drowsiness as seen with concussion. In my opinion, such injury would have been extremely unlikely to have been caused by impacts against the body or interior structures of a vehicle simply in forcibly bundling the deceased into the vehicle. (I am not aware or knowledgeable of the effect of tugging on the long hair of any deceased, but I draw attention to this in passing, during this injury analysis).

The magistrate in his judgment referred to the deceased having a “...thick mop of hair which could have a cushioning effect on any blow ...” – this must be understood as the cushioning effect spreading and diffusing the blow and which may render the identification of a specific wound pattern more difficult, but does not necessarily reduce the effect of the impact of the blow in causing the neurological injury to the brain.

- c. CHEST: Thoracic contusion (bruising): this is indicative of a heavy blow to the left lower front of the chest and would have been intensely painful. Such blows would also cause the person to be “winded” and breathless and doubled-up in pain. Such a blow could have also caused a cardiac

“concussion” (called *commotio cordis*). It must be noted that such a cardiac impact has been reported in many cases to be able to cause, by the impact to the heart muscle and its electrical impulse conduction system, sudden death by the trigger of a sudden abnormal cardiac rhythm where an actual bruise to the heart itself may not be visible to the naked eye.

- d. ABDOMINAL: Mesenteric “extravasation” of blood indicates a bleeding or contusion (bruising) – this can only occur with a *massive* abdominal blow, possibly by a fist or kick – this would have been seriously incapacitating in that the deceased would at that stage of the injury and for some time thereafter would have been “doubled-up” in pain and not only just “winded”, and been unable to sit or stand up or walk upright, and might have had restricted abdominal movements and respiration due to mesenteric irritation. The blow itself to cause a mesenteric contusion would have been of such force that it would have been potentially dangerous and even life-threatening had the spleen or liver been damaged. It is also somewhat surprising that the pathologist did not describe any free bloodstaining in the peritoneal cavity. It must be borne in mind that, if there was no observable bleeding, death may have supervened very shortly after the abdominal impact, and this may actually suggest that the death may have been caused by the chest/abdominal impacts themselves.
- e. GENERAL EFFECTS OF THE INJURIES: With regard to the injuries, individually and together, the deceased could not reasonably have been found to be simply awake and normal when and if the cell was last visited for inspection at 03h00 as testified, for at that stage he must have had sustained all the observed injuries. Had such visit been undertaken by an objective inspector of his condition would have found an injured person in noteworthy pain and distress if he was still alive after these injuries, if not in a state of unconsciousness from the head injury, or already deceased.

If it was whilst being interrogated in the office, as testified to by the two security policemen Lt Taylor and Captain Du Toit, that the injuries were

sustained, the deceased would probably have been unlikely to have been able to retain an upright or even seated position depending upon the injuries received at that time.

As it is clear, objectively from the histology in any event, that the injuries were between 4 to 12 hours old, the police officers in the charge officer at the period when the deceased was booked into the cell when it is alleged it had been, should have been able to discern that the arrestee was in pain and distress, even if his injuries were not immediately evident to their view.

38. Bodily injuries not in keeping with “bundling” into vehicle

- a. Despite the reluctance of the state pathologist Professor Gordon to express a view (in oral testimony) as to whether the bodily injuries were in keeping with pushing and shoving of the deceased into the vehicle, I am of a confident and resolute opinion on this aspect and which coincides with those of Dr Biggs and Dr Lourens.

- b. Regarding the post-cranial bodily injuries, as with the potentially serious head and thoraco-abdominal injuries described earlier above, these are not in keeping with the nature of injuries that are usually seen where the moving body comes into contact with protuberances, (unless the body was attendant with a high velocity momentum and dynamics such as in a motor vehicle collision, where the injuries would have quite strikingly other characteristics). These injuries of this deceased were more the consequence of specific and directed, multiple and discrete, impacts to those areas.

39. The deceased was to a great probability unclothed at the time of the injuries, particularly the limb and surface injuries, and at some point before his death walked barefooted.

- a. Whilst it cannot be confirmed with certainty, there arises the distinct and, in my opinion, a greater likelihood that the deceased was unclothed rather than clothed at the time of sustaining many or most of the peripheral limb injuries seen on the body. The clothing appear to be light-coloured, and testimony of the police was

that the suit he wore was a powder-blue colour (see page 25 of inquest transcript - Lt JB Taylor).

With light-coloured clothing, bleeding is easily noticed. Abrasions, while they do not bleed excessively, ooze blood or bloody fluid (bloodstained tissue fluid/serum) and will be noticed through a shirt, underpants, and then through light clothing. It is uncertain whether the clothing were stained in any way with blood (not described at the autopsy or scene examination by Prof Gordon), and in addition, Brigadier Neethling could not establish firmly the presence of blood on the clothing samples tested (page 43/44 of transcript) - it is indeed strange that this may have been. One possibility to consider is that if the deceased was re-clothed (re-dressed) after death and when the bloodstains were somewhat dried-out, the clothing might not have become stained.

In his report of the body examination, Dr Biggs also noted distinctly “grimy soles of feet” whereas the rest of the body surface appeared clean. This is unlikely to be the consequence of the post-mortem procedure but indicates that the deceased had at some earlier point just before his death walked barefoot.

40. The bodily (post-cranial) injuries would have been clearly noticeable over those areas which were injured, had they been present and exposed to view at any point during the stage of live-state detention.

According to the general medical consensus then, the wounds should all have been present on the body during the several stages of interrogation of the deceased, and at the time of being booked in at the charge office, and at all times during his confinement in the cell, if the times as testified to by the police officers are indeed correct.

Whilst on the photographs the images might appear slightly darker than immediately after death as is usual due to the darkening by dessication of skin wounds after death, their intensity of appearance and colour are such that they even in a lighter state of colour would definitely have had been visible if these areas were exposed to view.

41. The injuries to the limbs appear to suggest a distinct *pattern*, or *set of patterns*, and the possibilities of restraint, constraint, and specific natures of infliction are raised.

- a. The clustering and pattern of discrete lesions (injuries) around the elbows and knees and at the low back cannot escape notice. They indicate a specific directed application of force to these individual areas, strongly suggesting some sort of restraint or constraint by an object or surface with a patterned configuration of its surface. It is difficult to reconcile with usual causes of injury. A sort of shackling or restraint of the deceased whilst alive must be considered, as this fit in with a fixation of the elbows and knees especially.
- b. Dr Biggs suggested in his findings that some of the focal and discrete lesions had the appearances of the surfaces of skin when compressed as by lead seals onto string or wire. I suggest that the appearances of localised abrasions appear as such at drying out after death. When caused by specifically-shaped objects that have a well-demarcated pattern, an “indentation” and parchmenting of the skin surface and a neatly-circumscribed appearance may be seen.
- c. I thus cannot exclude the use of specifically-shaped electrodes as a possibility. It is unknown whether the pathologists for the different parties at the original inquest considered the possibility of application of electrical injury, or whether the pathologists looked for the same on the histology slides. In any event, from the text of the histology, electrical injury features do not immediately arise. However, I do not think that this possibility can be easily dismissed.
- d. Some individual abraded bruises suggest a crescentic shape, such as the injury over the outer aspect of the left foot, and certain lesions around the elbows and knees. This will indicate a pattern or shape of the object that struck the body.

- e. The injuries to the lower back are also in a “recessed” area which does not reconcile with incidental injuries of falls, or sliding on the ground, or in the case of being forced into the interior of a vehicle. They are separate discrete lesions, some of which also appear to constitute a circular interrupted cluster pattern as seen at the elbow and right knee.

- f. At the rear on the images of the left knee are visible two parallel linear marks (contusions or abrasions). Thus, there are linear injuries to the rear of *both* knees, whereas the autopsy report only records that at the right knee. This is quite unusual in such recessed position of the body, and is not easily reconcilable with bumping into objects during walking or with falls to the ground. Whilst injuries at the very back of the knees might be the result of impacts to that area, this is distinctly unusual to find in “normal” cases of assault and/or falls and/or accidental injury and raises the possibility of some nature of full-body suspension or similar - the possibility of the deceased having been suspended by a piece of wood under his knees must be borne in mind.

- g. The oval area of a fine set of petechiae at the rear of the left shoulder is an imprint contusion in a regular geometric pattern may be in keeping with an impact such as a fall against a similarly patterned surface, such as a firm textured carpet or stick-on carpet tile or similar. The possibility of a rubber sole of a shoe must also be considered. The pattern does not suggest that the fine fabric of the deceased’s shirt could produce the same. However, a *post-mortem* origin cannot be excluded.

42. The visible injuries alone may not necessarily indicate the full extent of physical impacts to the body; these would likely have been *more than the number of injuries visible*..

- a. It is important to recognise that in cases of injury, and especially as it applies to interpersonal violence, that the *threshold for visible wounding*⁴ is

⁴ In Knight’s Forensic Pathology, 3rd Edition (2004), Saukko and Knight refer to what I have called *threshold of visible wounding* in their page 136 where the authors say that “the body usually absorbs such forces...”

only exceeded at a certain degree of force applied, and lesser degrees may escape visible injury. In other words, if one sees a number of individual injuries on a body and which if can be counted as individual applications of force, the number of actual total impacts to the body may be considerably greater in number.

- b. Whereas I have counted between 60 to 75 individual discrete lesions (wounds) on the body, many of these are in clusters and groups which may have occurred in single impacts, or with repeated impacts to the same body part, with some patterned surface/s or object/s; thus the precise number of wounds may not be as relevant, save for acknowledgement of their multiplicity.

43. Professor Gordon's views (and the magistrate's conclusions) on the cause of death:

I point out that Professor Gordon's view that the "death was consistent with hanging and that the injuries other than those attributable to the ligature in no way contributed to the death" (see magistrate's judgment) is most troubling to accept. This is also read with the magistrate's conclusion that "(m)ost of the injuries were of minor nature except ... scalp and mesentery and ... sternum, ribs and loins ..."

The seriousness of the bodily surface injuries after they were inflicted, were such that the deceased would, in my opinion, have been in a state of intense pain and distress, likely unable to remain upright. With the head trauma there is a significant possibility that he could have been already in a stunned stupor or concussion, if not already unconscious. With the chest and abdominal trauma, the deceased would have been doubled-up in pain, breathing with difficulty, if not in a state of sudden cardiac death from a cardiac concussion.

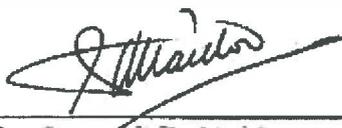
and it is only when the intensity of the applied force exceeds the capability of the tissues to adapt or resist that a wound or injury occurs".

K: CONCLUDING STATEMENTS

44. The inferences I have made in the Discussion (Section J above) represent the main conclusions of this injury and pathology analysis.

45. I add the following general concluding statements:

- a. The “motive to kill” (see magistrate’s judgment) is not necessarily or always seen in cases of death in detention and during interrogation by the police or any other detaining agency. In many custodial deaths, death may occur inadvertently and unexpectedly as a result of the extreme nature of restraint, or pressure, or stress, or to the effect of application of some force or injury, where homicide was not intended. In many such cases it is often strongly suspected, upon medical investigation, that the death would have been sudden and unexpected, for example if an asphyxial force, or electrical injury, or some effect of bodily injury, was caused by an unrestrained, or unchecked, application of the same.
- b. Had the deceased created himself the ligature and the method of ligature constriction of the neck, he would have been at the time of the death almost undoubtedly in such significant pain and distress that this possibility is questionable and must be seriously challenged and, if accepted, was likely an impelled or driven suicide on the basis of the prevailing and prodigious distress suffered.
- c. In my opinion, and based upon the injuries and their effects, the deceased was to a great possibility either unconscious or actually dead at the time of the ligature constriction and serious consideration must be given to the possibility of a homicidal slinging of the body in the position he was found.



Dr S R Naidoo

DATED: 28 June 2018

END OF REPORT

ANNEXURE A: Notes on the Estimation of Time Interval Since Death

The available facts:

1. The reading of 35,3 degrees C at 07h00 (06h59) at the scene examination was approximately 1,7 degrees lower than the assumed normal rectal temperature of 37 (36,9) degrees C. (Although the magistrate in his judgment referred to Professor Gordon taking the temperature of the “surrounding atmosphere”, there is no record of that, thus the temperatures in August in Durban being generally around 24 degrees high and 13 degrees low, average 18,5⁰ C is taken). The deceased was lightly clothed and had a lean body. The cell was indoors and unlikely to have been draughty and had likely a cold cement floor.

Calculations from body (core) temperatures

2. Professor Gordon used the rectal temperature readings he obtained (see page 10 of original inquest transcript) to arrive at his estimate, in probably the following way. There is much usage in my calculations of assumptions and averages and considering the exceedingly variable environmental conditions that affect the estimation of the post-mortem interval (PMI) this is not precise at all, but I wish to draw to what should be considered a reasonable conclusion at the end of this Annexure.
3. In theory, it is assumed that the normal core temperature is 37⁰ C, and that there is a post-death temperature plateau (before a temperature gradient for heat loss had been established) of between 1 and 2 hours, and that in general terms the steady post-mortem temperature drop after the plateau is $\pm 1^0$ C per hour for its linear phase.
 - a. Using the first temperature reading of 35,3⁰ C, this is a 1,7 degrees drop, and which needs to be added to the plateau extrapolating this to between 2,7 to 3,7 hours since death, close enough to Prof Gordon’s estimate of 3 to 4 hours and where the time of death was suggested at between **3 and 4 am** that morning. This method takes no other environmental and other conditions into consideration and is a very rough rule-of-thumb process.

b. If, however, using the same method we use the temperature reading of 27 degrees C at 10h23 at the beginning of the autopsy, ten degrees lower than normal (it would appear that this was done at the morgue just at the beginning of the autopsy), the rough calculation would be 11 to 12 hours since death, bringing the time of death to between **10h23pm and 11h23 pm** on the night before. Bearing in mind a general principle is that the further away from death the temperature is measured, the greater the possible permissible variation of time of death. This rough method demonstrates the wide variability and the unreliability of this method.

4. There are a few other more “stringent” methods employed when the clothing and air movement is considered, particularly the use of Henssge’s normogram method. The writer employed the method using both Prof Gordon’s first and second temperature measurements with an average environmental temperature of 18,5 °C (bearing in mind that night temperatures may be lower than the average between lowest and highest) and arrived at the results of 7 and 11 hours after death respectively. The method employed can be supplemented by necessary supporting documentation.

Rigor mortis

5. The state of the full development of rigor mortis indicates a useful impression of the time of death. Gordon’s finding (his Annexure “D”) was that rigor mortis “had developed completely” and “fully developed” in all of the joints he described. Complete rigidity happens between **6 to 10 hours of the death** - mean at 8 hours - according to Henssge (1995)⁵ is his well-researched text. This would translate to death at **between 9pm and 1am** that night.

Hypostasis (Lividity)

6. [The distribution of lividity (Annexure D, last two paragraph of its first page) can be considered in keeping with with the assumed posture when the body was discovered. This is generally less helpful in time of death estimation.]

⁵ Henssge C, et al. *The Estimation of the Time Since Death in the Early Postmortem Period* (1995): Edward Arnold. Table 5.3 and text on page 152.

Discussion

7. Whereas body temperature is said to be very useful in estimation of the time of death in the *early* interval after death, the results of calculations from the two temperature readings are remarkably distant from each other. The wide variations in the reading indicate the inexact process of calculations from temperature, in spite of its apparent reliability. This is largely because the temperature gradient is not a linear one. This writer is also of the opinion that the multiple factors that usually affect temperature changes may particularly have been at play at the second temperature reading with the various manipulations, the body having been removed from the cell, placed within a vehicle, and then transported to the mortuary.

8. Given the above, the first temperature measurement in the cell should be considered more reliable of the PMI (post-mortem interval) than the second. The sequence, nevertheless, of the onset and development of the rigor mortis is more regular and less affected (although *not unaffected*) by environmental variations. In my own experience at scenes of death, I would use the time-onset of rigor mortis to help support or narrow if possible the calculation based upon temperature.

9. Assuming that the fully-developed rigor mortis at *at least* 6 hours after death can be held to be relatively more reliable, the PMI since death might be closer to at least 6 to 7 hours prior to Prof Gordons examination at just before 07h00 that morning. It is therefore my sustained impression that the actual time of death might have been more likely under-estimated by Prof Gordon. In my opinion, therefore, death probably occurred just before or after midnight that first night of the detention.

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Dr S R Naidoo

ANNEXURE B: Credentialing and Contact Details of Consultant

i. **Full names:** Segaran Ramalu Naidoo (known as Steve), Identity number 590406 5042 08 5.

ii. **Contact details:**

OFFICE: 25 Seatide Drive, Seatides, Tongaat Beach 4399, Durban, South Africa

BUSINESS POSTAL: PO Box 95, Desainagar 4405, Durban, South Africa

Tel: +27 32 943 1143; Mobile: +27 82 904 1143; Fax: +27 86 530 6604

E-mail: stevenaidoo11@gmail.com

iii. **Registration:** Medical practitioner registered as a specialist forensic pathologist in the category of independent practice with the Health Professions Council of South Africa (HPCSA) and with registration number MP 0248118.

iv. **Qualifications:** *MB ChB (Natal); D For Med (SA); MMed Forensic Pathology (Natal); MFFLM*

v. **Experience:**

- a. As at 2018 I have had 35 years of experience in forensic pathology, 30 of which in public service work, 27 years of which as a specialist, at least 18 years of which in the joint academic staff of the University of KwaZulu-Natal (UKZN), and for 8 years (2003 – 2011) of which as Associate Professor and Head of the UKZN Department of Forensic Medicine.
- b. I have worked in the medical and forensic teams for the United Nations in Bosnia, Croatia and Kosovo with the International Criminal Tribunal for the former Yugoslavia for several years past.
- c. Other affiliations: Honorary Research Fellow at the School of Law at UKZN until January 2016.
- d. Founding Chair of the African Network (now Society) of Forensic Medicine (ASFM).
- e. Member of the Forensic Advisory Board of the International Committee of the Red Cross (ICRC).

- f. Member (current) of the ministerial National Forensic Pathology Services Committee (NFPSC) of the National Department of Health, South Africa.
- g. Expert listed on the Justice Rapid Response organisation, serving on technical teams of Experts on (1) the AU Commission of Inquiry into South Sudan (2014) and (2) on another confidential 2017 Independent Forensic Investigation (IFI) by the International Humanitarian Fact Finding Commission (IHFFC) based in Geneva, Switzerland.

vi. **Other pertinent academic aspects –**

I have been and currently still teach:

- a. Forensic medicine and pathology to undergraduates and post-graduates medical and law students.
- b. A module on Forensic Medicine to Masters of Law (LLM Medical Law) students at University of KwaZulu Natal.
- c. A programme on Understanding Medical Evidence in Sexual Assault to legal practitioners of Legal Aid South Africa.

I have written several journal articles and book chapters, including an article for The Encyclopaedia of Forensic and Legal Medicine (Elsevier). I am in the process of completing a court handbook for the interpretation of medical evidence in sexual contact cases for doctors and lawyers. I have attended and presented at multiple local, national, and international medical and forensic conferences and meetings.

- vii. **Current practice:** I currently am and have been in private/independent practice for my own account since March 2012. I have since been involved in working abroad for the United Nations and the African Union on technical expert teams, and for Amnesty International and other human rights organisations. I am a consultant for the National Prosecuting Authority in SA on several cases where investigations have been revived.

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