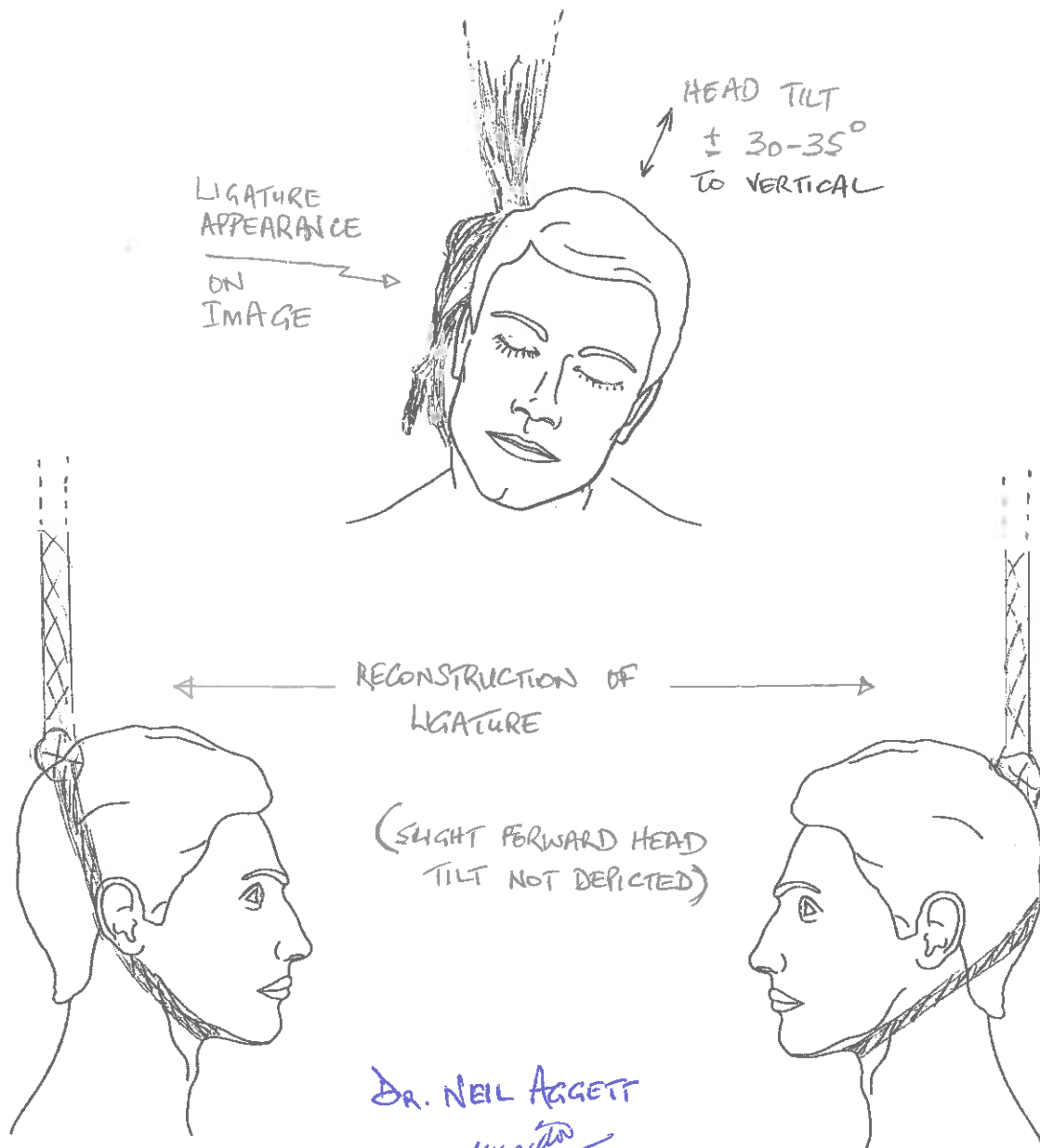




Dr. NEIL ARGETT

Neil Argett
S.R. NA1000
21/01/2020

RECONSTRUCTION

6th BAR

NB: ARBITRARY POSITIONS
OF BARS + WOUNDS

Examination of Dr NEIL ARGETT

on

By

S.R. NAIDOO
21/01/2020
S.R. NAIDOO

UPPER
TIE

5th BAR

KNOT POSITION

PRESUMED
MANNER
OF LIGATURE
STRANDS
(2/3)

3x3x3 cm
FRESH
TRIANGULAR
BRUISE

4th BAR

FOUR
9mm Ø
SCARS

1,5cm x 1,5cm x 1,5cm
TRIANGULAR
IRREGULAR
SCAR

3rd BAR

1,5cm
ABRASION
OVER 4th
LUMBAR
VERTEBRA

2nd BAR

HEALING ABRASION
(R) ANKLE

1st BAR

FLOOR

RECONSTRUCTION
S.R. NAIDOO
16/01/2020

Exhibit

MANUAL FOR THE PERFORMANCE OF POST MORTEMS

Instructions to medical practitioners for:

- The performance of medico-legal post mortem examinations.
- The completion of reports on medico-legal post mortem examinations.
- The collection and forwarding of post mortem medico-legal specimens for special laboratory investigations, viz — pathological and toxicological examinations.

Note: Post mortems for cremations and on miners in terms of the Occupational Diseases in Mines and Works Act, 1973 (Act 78 of 1973), are NOT described here.

SECTION 1

THE PERFORMANCE OF MEDICO-LEGAL POST MORTEM EXAMINATIONS

1. Cases where generally no medico-legal investigation into the cause of death need be performed

Such cases are dealt with in sections 20, 23 and 24 of the Births, Marriages and Deaths Registration Act, 1963 (Act 81 of 1963).

1.1 **Still-births.**—In such cases, the medical practitioner or registered midwife who was in attendance at the birth, or any medical practitioner who has examined the body of the child, must forthwith sign and issue, without remuneration, a certificate stating that the child was still-born. If no medical practitioner or registered midwife was available, the person who is legally responsible for reporting the death shall make a solemn declaration that the child was not born alive and hand over such declaration to the registrar of deaths.

1.2 **Patients.**—In the case of the death of any person who was attended by a medical practitioner, such medical practitioner shall, if satisfied that such death was due to natural causes, forthwith issue without remuneration a certificate in accordance with his opinion.

1.3 **Other cases.**—If the registrar is satisfied that the death occurred as a result of natural causes, the death can be registered regardless of the fact that—

- 1.3.1 the person was not attended to by a medical practitioner during his last illness;
- 1.3.2 no certificate by a medical practitioner can be produced that the death was a result of a natural cause;
- 1.3.3 no post mortem was carried out or will be carried out.

Note: (a) The police officer in charge of a charge office, police station or police mortuary is *ex officio* registrar of deaths and still-births which occur in the police area in which such charge office, police station or police mortuary is situated. With regard to Blacks, all formalities in terms of the Act are carried out by registrars appointed by the Director-General for Co-operation and Development.

(b) A medical practitioner to whom the death of a person who was not his patient is reported may issue a death certificate if he is satisfied that the death was due solely and exclusively to natural causes, but he is not obliged to issue a certificate.

2. Cases where a medico-legal investigation into the cause of death must be performed

Provision in regard to medico-legal investigations into the cause of death is made in—

- 2.1 Sections 21, 23, 24 and 25 of the Births, Marriages and Deaths Registration Act, 1963 (Act 81 of 1963).
Where the registrar appointed under the Act is not satisfied that a child was still-born or is not satisfied or is no longer satisfied after he has already issued a burial order that the death of a person (whether or not a death certificate has been issued) was due to natural causes, he must report the case to the magistrate. Upon receipt of the report, the magistrate must instruct the district surgeon or other medical practitioner to investigate the cause of death and if the medical practitioner is of the opinion that the death was due to natural causes, the magistrate must in the prescribed manner transmit this opinion to the registrar.

2.2 Section 3 of the Inquests Act, 1959 (Act 58 of 1959).

The magistrate to whom the death of a person is reported shall, if the body of such person is available and if he deems it expedient in the interests of justice, cause such body to be examined by the district surgeon or any other medical practitioner who may, if he deems it necessary for the purpose of ascertaining with greater certainty the cause of death, make or cause to be made an examination of any internal organ or any part or any of the contents of the body or of any other substance or thing. For the purpose of any examination any part or internal organ or any of the contents of the body may be removed therefrom and a body or any part, internal organ or any of the contents of a body so removed therefrom may be removed to any place. A body which has already been interred may, with the written permission of the magistrate or attorney-general within whose area of jurisdiction it has been interred, be disinterred for the purpose of any examination mentioned above.

The Inquests Act thus specifically provides for the dissection of a body and the removal, if necessary, of specimens for special laboratory investigation. It is clear that the decision as to whether the medical officer charged with the examination will or will not dissect the body or remove any part, organ or contents for special investigation rests entirely in his discretion. This responsibility is a most important one since, in a case in which death is due to unnatural causes and for which some person may be held criminally liable, failure to carry out an adequate investigation may lead to the irretrievable loss of evidence that may later prove to be of great legal importance and so may seriously prejudice the course of justice. It is also desirable, in the interests of economy, that unnecessary post mortem examinations and special laboratory investigations should not be performed. The medical officer should therefore carefully consider all the facts when deciding what procedure must be followed and is personally liable for any neglect to make, or cause to be made, as adequate an investigation as circumstances require.

3. Advice as to the procedure to be adopted in the medico-legal investigation of the cause of death

3.1 **Deaths which fall under the Births, Marriages and Deaths Registration Act.**—In such cases or where the police officer investigating the circumstances of the death reports that there are no suspicious circumstances to suggest that the death was due to other than natural causes, the medical officer should carry out an investigation consisting of—

- 3.1.1 interviews, if need be in conjunction with the police officer who is investigating the circumstances of the death, with persons who may be able to give evidence regarding the nature of the deceased's last illness;
- 3.1.2 consultation with any medical practitioner who recently attended the deceased;
- 3.1.3 an inspection of the dead body.

Note: (a) If the above-mentioned investigation indicated with reasonable certainty that the death was due to natural causes, even though the exact pathological cause appears to be obscure, a dissection of the body is unnecessary.

(b) If the above-mentioned investigation suggests that it may have been due to other than natural causes, the case should be regarded as falling under the Inquests Act and the magistrate should be informed accordingly.

3.2 **Deaths falling under the Inquests Act.**—If the death is known or is suspected to be due to unnatural causes a decision as to the extent to which the examination should be carried out will largely be influenced by the question as to whether or not criminal proceedings may be taken against any person in connection therewith.

3.2.1 If the cause of death is obvious from external examination of the body or from a partial dissection thereof and the police officer investigating the circumstances of the death is able to state without a doubt that criminal proceedings against some person will not follow (e.g. in clear cases of suicides and in many cases of accidents) a complete dissection of the body is unnecessary. If a partial dissection reveals that the death was unquestionably due to natural causes, further dissection is unnecessary.

3.2.2 If the death is due to unnatural causes, or there is any possibility that criminal proceedings may follow, it is advised that the medical officer should make a complete post mortem examination of the body and take specimens for special laboratory investigation. It is further advised that this procedure should be followed in any cases of doubt.

3.3 **Death associated with anaesthesia.**—Section 56 of the Medical, Dental and Supplementary Health Services Act, 1974 (Act 56 of 1974), stipulates that the death of a person whilst under the influence of a general or local anaesthetic, or to which the administration of an anaesthetic has been a contributory

cause, is an unnatural death. Any death which is reported under this section, whatever its apparent cause as indicated clinically or by post mortem examination, must always be regarded as a death due to unnatural causes, to be followed by an inquest. It is therefore advisable that a complete post mortem examination must be made in all these cases.

- 3.4 **Deaths of prisoners.**—Section 86 of the Prisons Act, 1050 (Act 8 of 1959), stipulates that a magistrate, if he deems it necessary, must hold an inquest on the death of any prisoner who dies in custody. In all cases of unnatural deaths and in cases of a natural death of a person detained on a political charge a post mortem *must* be done personally by the chief state pathologist. The preliminary investigation may be done by another state pathologist, district surgeon or consultant. In all other cases a post mortem is only necessary if ordered by a magistrate.
- 3.5 **Deaths of miners.**—The removal of the cardio-respiratory organs of persons who had worked in a dusty atmosphere at a controlled mine for examination by the National Centre for Occupational Health is not a medico-legal function. Should, however, the Act on Occupational Diseases in Mines and Works Act, 1973, require the cardio-respiratory organs to be submitted, the removal must not interfere with any dissection of these organs that may be deemed necessary for medico-legal purposes.
- 3.6 **Deaths occurring outside the borders of the Republic.**—Persons who die beyond the 20 kilometer limit on ships which are not registered in South Africa do not fall under the jurisdiction of the RSA. A post mortem examination may be performed on such a case, but only at the written request and with the permission of the official representative of the country of which the deceased was a citizen. The use of a police mortuary for this purpose is subject to the approval of the police. The place of death is where the body is brought on land.
- 3.7 **Exhumations.**—The function of the state pathologist or medical practitioner is to carry out a post mortem examination and to express an expert opinion. His presence at the exhumation is not obligatory.

4. The performance of medico-legal post mortem examinations

- 4.1 Medico-legal post mortem examination should normally only be carried out—
- 4.1.1 by Government pathologists, district surgeons or Government medical officers or other medical doctors who have been authorised by the Department of Health and Welfare to do so;
 - 4.1.2 after instructions have been received from a magistrate of the district to investigate the cause of death or to examine the dead body; and
 - 4.1.3 as soon as is reasonably possible after such instructions have been received.
- 4.2 A complete post mortem examination should consist of—
- a full external examination of the body;
 - the opening of all the major body cavities (cranial, thoracic and abdominal and the spinal canal if necessary) and the inspection of all the internal organs *in situ*;
 - the removal of all the internal organs and their individual dissection and examination; and
 - the judicious selection and collection of such specimens as may be deemed necessary for special laboratory investigation.
- 4.3 In a complete post mortem examination—
- all abnormal changes present should be fully examined and accurately and fully noted; and
 - the mass of all organs which appear to be abnormal in size should be measured; and
 - all abnormal collections of fluid in the body should be accurately measured.
- 4.4 Detailed notes of all the post mortem findings should be made at the time of the examination, as well as any sketches that may be deemed desirable. It is often desirable to have the police take photographs of the body and of any injuries present.
- 4.5 Appropriate textbooks should be consulted for suitable methods of dissection.
- 4.6 The opening of the body should be carried out by the medical officer or by an assistant working under his direct and immediate supervision. The actual examination of the body and the removal, dissection and examination of the internal organs should always be carried out by the medical officer himself.
- 4.7 At the end of the examination, the medical officer should ensure that all organs and tissues, except those specimens retained for special laboratory investigation, are returned to the correct body.
- 4.8 The medical officer must fill in form GW 7/15 regardless of whether the death was due to natural or to unnatural causes. A copy of this form is filed at the mortuary for every post mortem examination.

5. Presence of persons other than the medical officer conducting the examination at medico-legal post mortem examination

In terms of section 3(5) of the Inquests Act, 1959 (Act 58 of 1959), no person other than a police officer or any other medical practitioner shall be present without the consent of such magistrate or the medical practitioner conducting the examination. Any person who contravenes these provisions or who hinders or obstructs a medical practitioner, or a police officer or any other person acting on the instructions of a medical practitioner or police officer in carrying out his powers or duties under this section, shall be guilty of an offence.

6. Medico-legal post mortem examination by a medical practitioner on his own patient

It is undesirable that a medical practitioner should perform a medico-legal post mortem examination on one of his own patients. Should the magistrate request him to perform a post mortem examination on such a body, the medical practitioner must draw the attention of the magistrate to the professional relationship which had existed between himself and the deceased. The same applies if the deceased was a patient of the medical practitioner's assistant, partner or locum tenens.

7. Regional consultants

The following consultants have been appointed in the various regions of the Republic to assist any medical practitioner, officially charged with a medico-legal examination with any problems which he may have and to handle all post mortem examinations involving fatal aircraft accidents and prisoners who died in custody.

Pretoria

The Chief State Pathologist

Street address: Institute of Pathology, Beatrix Street, Pretoria, 0002

Postal address: P.O. Box 2034, Pretoria, 0001

Telegrams: Address as above

Telephone: Pretoria (012) 323-5298 direct. After hours (012) 73-4588

Region served: Northern Transvaal—East of N1 Route

Mortuary telephone: (012) 323-2116

Ga-Rankuwa

The Chief State Pathologist

Street address: Ga-Rankuwa, 8 km west of Rosslyn

Postal address: Private Bag X422, Pretoria, 0001

Telegrams: Phodiso, Pretoria

Telephone: (012) 58-2725 (Telephone service 24 hours per day)

Region served: Northern Transvaal—West of N1 Route

Johannesburg

The Chief State Pathologist

Street address: Corner of Hooft and Joubert Streets, Johannesburg, 2001

Postal address: Private Bag 9, Braamfontein, 2017

Telegrams: Address as above

Telephone: Johannesburg (011) 725-5832, 725-5876/7. After hours (012) 73-4588.

Region served: Southern Transvaal

Mortuary telephone: (011) 724-7211

Bloemfontein

The Chief State Pathologist

Street address: 11 James Dicks Street, Wilgehof, 9301

Postal address: Private Bag X20662, Bloemfontein, 9300

Telegrams: Health, Bloemfontein

Telephone: Bloemfontein (051) 7-0741 x 432. After hours 22-2577

Region served: Orange Free State and the Cape Province north of the Orange River

Mortuary telephone: (051) 8-0011

Cape Town

The Chief State Pathologist

Street address: Upper Orange Street, Cape Town, 8001

Postal address: Private Bag X9066, Cape Town, 8000

Telegrams: Pathlab, Cape Town

Telephone: Cape Town (021) 47-7688 or 931-8043. After hours (021) 23-3661 or 96-5005

Region served: Cape Province south of the Orange River

Mortuary telephone: (021) 417-4456

Durban

The Chief State Pathologist

Street address: 719 Umbilo Road, Congella, 4001

Postal address: P.O. Box 17039, Congella, 4013

Telegrams: Pathologist, Durban

Telephone: Durban (031) 25-1054. After hours (031) 85-6173

Region served: Natal

Mortuary telephone: (031) 31-3471

Note: Should the consultant or his deputy be unavailable, contact the officer in charge of the South African Police Mortuary in the town where the consultant has his headquarters or the Director, Laboratory Services, Department of Health and Welfare, Pretoria if the matter is urgent.

SECTION II

THE COMPLETION OF REPORTS ON MEDICO-LEGAL POST MORTEM EXAMINATIONS

FORM GW 7/15

1. This form must be completed as soon as is reasonably possible after the examination from notes which were made at the time of the examination. It is essential to preserve the notes.
2. The completed form must immediately be handed to the police officer investigating the circumstances of the death.
3. The following directions must be followed when completing the form:
 - 3.1 Described the injuries or abnormalities found briefly but fully, accurately and clearly, using as far as possible non-technical terms. If there is no accurate non-technical term or expression, use the correct technical term or expression and indicate its meaning in adjacent brackets. Give measurements and the dimensions of injuries and the mass or measurements of all organs which appear to be abnormal and of any abnormal collections of fluid as far as it is practical to do so.
 - 3.2 If for any reason a particular organ or tissue is not examined, do not merely leave the appropriate paragraph on the form blank but clearly endorse "not examined". Care must be taken to ensure that the report does not give a false impression that a complete examination has been carried out when no or only a partial dissection was made.
 - 3.3 When an organ or part appears to be normal endorse the appropriate space on the form "nothing abnormal detected".
 - 3.4 If any injury or abnormality involves several organs or tissue, it may be desirable to give a complete description of the injury or abnormality again under the appropriate paragraphs on the form for the different organs or tissues; these paragraphs may then be simply endorsed with a reference to the full description elsewhere of the injury or abnormality e.g. "see paragraph 24".
 - 3.5 If the space allotted on the form for the description of any injury or abnormality of a particular organ or tissue proves to be insufficient for the necessary description or if it is desired to give a complete description of an injury or abnormality which involves several organs or tissues and there appears to be no appropriate space on the form for this description, then give the description on a separate sheet of paper. This sheet should contain the following particulars:
 - The full name of the deceased, if available;
 - the date and the serial number of the post mortem examination;
 - the appropriate heading for the description;
 - the full description of the injury or abnormality; and
 - the signature of the medical practitioner and the date

- 3.6 Pin this sheet to the inside of the form and attach a copy thereof to the copy of the form. Endorse the appropriate paragraph on the form "see attached annexure". If more than one annexure is attached, number consecutively and give the numbers in the appropriate paragraphs of the form, e.g. "see attached annexure 3".
4. Restrict the schedule of observations entirely to the record of the facts as ascertained at the post mortem examination and do not include any previous clinical findings, hearsay or reference to how the injuries or abnormalities were incurred.
 5. If a regional consultant has been called in, his observations and opinions should be given in a separate report which may be included with the post mortem report on form GW 7/15. The same procedure applies to reports on special laboratory investigations which have been carried out.
 6. The medical practitioner should not discuss the findings of the post mortem examination and their significance with any person except persons—
 - to whom he may officially apply for advice or assistance in the investigation of the case, e.g. the pathologist or analyst to whom he may send specimens for pathological or toxicological examination; or
 - who are officially concerned on behalf of the State in the investigation of the case, e.g. the police officer investigating the circumstances of the death; or
 - who are officially concerned on behalf of the State in presenting the evidence before a court, e.g. the public prosecutor; or
 - with whom he has been given permission to do so by the attorney-general.
 7. Section 212 of the Criminal Procedure Act, 1977 (Act 51 of 1977), provides for the handing in of reports on post mortem examination in affidavit form in court. It is advisable that all reports be submitted in this form since, especially at a preparatory examination, these reports may be handed in without the medical practitioner having to attend the court.
 8. If requested to do so by an officer who on behalf of the State is officially concerned with the investigation of the case or in presenting evidence of the case before a court, the medical officer may furnish him with a written statement which incorporates relevant medical opinions or comments upon the post mortem findings or the clinical or other evidence in the case. Preferably the case should be referred to the regional consultant.
 9. No copies of form GW 7/15 or any information concerning the post mortem examination may be divulged to any person except to official bodies which may require this for purposes of—
 - The Inquest Act, 1959
 - The Factories, Machinery and Building Work Act, 1941
 - The Mines and Works Act, 1956
 - The Workman's Compensation Act, 1941
 - The Occupational Diseases in Mines and Works Act, 1973
 - The Compulsory Motor Vehicle Insurance Act, 1972
 - The Prisons Act, 1959
 - The Aviation Act, 1962
 - The Criminal Procedure Act, 1977
 - The Surgeon-General of the South African Defence Force.
 In all other cases, persons requiring information must be referred to the magistrate, who may issue a copy of the report.

Note: Attorneys are not official bodies and must obtain a copy via the magistrate (this applies also to motor vehicle accidents).
 10. The following is a guide to the completion of the various paragraphs of the form GW 7/15 and notes on dissection. Insert the following in the appropriate spaces: (Numbers refer to the paragraph numbers of form GW 7/15).

"Death register No"

The serial number of the post mortem examination according to the number of the body.

"To the Magistrate of"

Name of magisterial district in which the post mortem examination was held.

"I"

Full name, in block letters, of the medical practitioner who performed the post mortem examination.

(i) "that at"

The place where the post mortem examination was held.

"I examined the body of"

male or female; infant; child or adult; and White, Coloured, Asian or Black.

(ii) (a) and (b) "that this body was identified to me—"

Names and addresses of witnesses as to the personal identity of the deceased. It is advisable that whenever possible there should be at least two such witnesses.

Note: (a) Names and addresses of witnesses, if any, who may form a chain of evidence linking the body of the deceased with a series of events is of great legal importance, e.g. the witness identifying the body as that of the person he saw assaulted or involved in an accident, the witness who identified the body of a person he conveyed to a particular hospital on a particular day, etc. If necessary the particulars of these identifications may be given in an annexure attached to the report. As such a chain of identifying witnesses may be of great legal importance every effort should be made by the medical practitioner to co-operate with the police officer investigating the circumstances of the death to obtain such a chain when such appears to be desirable.

(b) Circumstances may prevent the police from bringing all the witnesses together at the same time for the identification of a body. It is therefore recommended that the investigating officer identify the body to the medical practitioner as indicated in paragraph (a) above, or by means of a serial number. The further identification, to complete the chain of identifying witnesses, can then be done after the post mortem examination if so preferred, to the investigation officer.

"(ii)(b) as being that of"

Full name of the deceased in block letters. If the body has not been identified this line should be endorsed "an unknown person found at (place) on (date on which body found)".

"whose reputed/estimated age was"

Age of the deceased as estimated by the medical practitioner from his general appearance. In the young, including newborn infants, the age may be determined from the appearance of appropriate ossification centres as well as from the general development.

"(iii) that death took place"

The estimated period in hours, days, weeks or months, which has elapsed between the death of the deceased and the commencement of the post mortem examination.

"(iv) that the chief post mortem findings"

Summary of the chief post mortem findings.

"(v) that, as a result of my observations"

State clearly the primary medical causes of death as determined solely from the post mortem findings and not from the clinical history or from hearsay evidence. If more than one cause appears to have been operative state first the immediate cause, then the secondary causes and finally any contributory causes and make clear the relationship of these causes to each other. If the cause of death cannot be determined with reasonable certainty from the post mortem findings alone, state the cause of death as "based on the post mortem findings alone, undetermined". Later at the court proceedings it may be possible to determine the cause of death from the post mortem findings considered with the evidence of the clinical history of the deceased or from the results of any special laboratory investigations which have been carried out. If necessary, the prosecutor can send the complete docket to the regional medico-legal consultant for an expert opinion.

"Qualifications" as registered by the South African Medical and Dental Council.

"Designation", e.g. "Senior Government Pathologist, Cape Town".

Schedule of observations

Length in metres and centimetres.

"Mass"

If possible, the mass of the body in kilograms should be determined or estimated by the medical practitioner from the general appearance of the deceased. If the mass is estimated, the word "estimated" should be endorsed in brackets immediately after the mass.

"Physique"

Describe the physique in general terms, e.g. strong, normal or weak.

"Nutrition"

Describe nutrition in general terms, e.g. fat, normal or thin.

"Special features"

Describe any special identifying features, e.g., scars, tattoo marks, deformities, etc. If the body has not been positively identified, special attention should be paid to all possible identifying features, which should then be fully described.

"Secondary post mortem changes"

Briefly describe the state of development of the secondary post mortem changes, viz, hypostatis, rigor mortis, putrefaction, etc.

"External appearance"

Briefly, clearly, fully and accurately describe all external injuries or abnormalities of the body and all injuries or abnormalities of the limbs and give the accurate dimensions of all injuries. Reference may also be made to any sketches or photographs which have been made of the body and which are enclosed with the report. Such sketches or photographs should be endorsed with:

- The full name of the deceased if available;
- the date and serial number of the post mortem examination;
- a short appropriate description; and
- the signature of the medical practitioner and the date.

Note:

- (a) Appropriately mark and preserve any foreign objects or material found on the body or in any wounds for handing over to the police. Ensure that the recipient issues a receipt.
- (b) Describe any abnormal appearance of any of the body orifices.
- (c) If the body is that of a newborn infant, note whether it has been washed or not, whether the umbilical cord has been cut, torn or tied, the circumference of the head, the presence, and position of a *caput succedaneum*, the nature of any wrappings in which the body was found, etc.
- (d) If the scene of death has been visited, note any appropriate observations, e.g. the position of the body, the state of the clothing, the presence of blood or other stains, the surrounding conditions, the internal temperature of the body and of the surrounding air, prevailing climatic conditions, etc.

"Intracranial contents"

Note any abnormal odour present when the cranial cavity is opened and carefully examine the intracranial contents.

"Orbital, nasal and aural cavities"

Need only be examined if special indications to do so are present.

"Mouth, tongue and pharynx"

Carefully examine all the air passages for the presence of any foreign material and if such material is present, a sample, if necessary, should be taken to determine its nature.

"Neck structure"

If there is any suspicion that constrictive force may have been applied to the neck, carry out (preferably in a bloodless field) a careful flap dissection exposing the soft tissues of the neck layer by layer. Be careful to differentiate between ante mortem bruises that may be present and any local effusions of blood into the tissues as the result of dissection. Take specimens for histological examination.

"Chest"

Besides noting any abnormalities that may be present in the mediastinum, determine the mass of the thymus if it appears to be enlarged and take a section for histological study. The diagnostic significance of an apparent enlargement of the thymus in explaining the cause of sudden death is very doubtful.

"Lungs"

In newborn infants, if the lungs do not appear to be fully expanded, carry out a hydrostatic test to determine whether they contain any inspired air and, if so, to what extent they have been expanded.

"Heart"

Open all the chambers of the heart, dissect the coronary arteries and cut into the myocardium and inspect. In any case of sudden death of apparently obscure origin the possibilities of thrombopulmonary or air embolism should not be overlooked and appropriate methods of dissection to demonstrate the presence of these conditions should be employed.

"Blood vessels"

Describe abnormalities of the large blood vessels, e.g. aneurysm of the aorta.

"Abdomen"

Remove the stomach and duodenum after tying the ends with ligatures, or clamping them with clamps, and open in a clean dish. Note the presence of any abnormal smell, colour or substance as well as the nature and state of digestion of any food and the condition of the mucous membrane.

"Intestines"

In some cases of suspected poisoning, though it may sometimes be deemed unnecessary to forward the intestines for toxicological examination, they should always be carefully examined. The small intestine should be removed, after ligature at the duodenal and caecal ends, placed in a clean dish and opened by splitting along the anti-mesenteric border. After examination of the contents, the mucous membrane surface should be washed in running water and then carefully inspected. A similar technique may be used for examination of the large bowel. Note at what distance from the stomach food is discernible in the duodenum.

"Spleen"

Specimens of splenic pulp for microbiological examination are often of value in cases of suspected fatal septicaemia provided that advanced putrefactive changes are not present.

"Adrenals"

The possibility of suprarenal haemorrhage as a cause of sudden death of apparently obscure origin should not be overlooked.

"Kidneys"

In cases of death following one or two weeks after crushing injuries to the limbs, blood transfusion or abortion, the possibility of a lower nephron nephrosis should be remembered and appropriate specimens for histological studies should be taken; a specimen of cerebrospinal fluid for urea content determination should also be taken.

"Bladder"

Specimens of urine for special laboratory investigation are best obtained, after opening the abdomen, by puncture through the bladder dome with a clean needle and a clean syringe.

"Sexual organs"

In females in whom it is suspected that abortion or rape has occurred, the vulva and vaginal entrance, including the hymen, if present should be carefully inspected prior to dissection. It is advisable that the pelvic organs should then be removed *en masse*. This may be accomplished by dissecting downwards from the abdominal cavity outside the peritoneum and close to the bony pelvic wall starting above the false pelvis and continuing down to the pelvic floor. Dissection should then be commenced upwards, to join the incision made from above, from an elliptical incision around the vulva and anus. The pelvic organs can thus be removed in a single block. They may then be spread on a dissecting board and dissected and examined individually. If a foetus is present in the uterus, its degree of maturity may be estimated from its length and the development of ossification centres. If the uterus is empty and it is suspected that there may have been a recent abortion, suitable specimens should be taken from the uterine cavity for histological examinations for placental remains. The ovaries should be examined for the presence of a corpus luteum.

In cases of suspected rape, specimens should be taken from the vaginal fornices for microscopic examination for the presence of spermatozoa.

The female breasts are best examined by incisions into their substance from the inner aspect of the reflected soft tissues of the chest wall. Histological examinations of sections of breast tissue may be of value in indicating a recent pregnancy.

"Spine"

The spinal column may be examined for possible fractures and dislocations by inspection, palpation and manipulation after removal of all the internal organs. If injuries of the spine are present or such injuries are suspected, and it is desired to examine them in more detail, the spine should be exposed from behind.

"Spinal cord"

The spinal canal need only be opened and the spinal cord examined if there are special indications for doing so.

"Specimens"

State to whom any specimens for special laboratory investigation have been handed or how they were disposed of.

OTHER FORMS

Following upon a medico-legal post mortem examination, the medical practitioner may be requested to fill in forms other than form GW7/15 and the forms mentioned in paragraph 9 e.g. those required by insurance companies, cremation authorities and others. Unless the death was due to natural causes, no information as to the cause of death or any other post mortem findings may be divulged. Since the failure to complete a form may result in hardship to the relatives of the deceased, the medical practitioner must give written proof that a post mortem examination was performed. It is therefore customary to certify on the submitted form only that a medico-legal post mortem examination has been performed, to state the date and the reference number of the examination and to sign the form. In such a case copies of form GW 7/15 must be obtained by the interested party from the relevant magistrate's office.

In cases of notifiable medical conditions under the Health Act, 1977 (Act 63 of 1977), the relevant notification form must be completed.

SECTION III

THE COLLECTION AND FORWARDING OF POST MORTEM MEDICO-LEGAL SPECIMENS FOR SPECIAL LABORATORY INVESTIGATIONS

An important part of any medico-legal investigation of a body is the careful selection, the proper collection and the correct forwarding of suitable specimens for special laboratory investigation whenever such investigation is indicated.

These specimens may be arbitrarily divided into two classes viz

- Pathology specimens, i.e.—
 - (i) specimens for histological or microscopic examination;
 - (ii) specimens for microbiological, virological and serological investigation; and
 - (iii) specimens for biochemical investigation.
- Toxicology specimens, i.e. specimens for chemical toxicological investigations.

1. Pathology specimens

Note: Autolytic and putrefactive changes, which may rapidly develop in the body after death, may obscure or destroy important findings. It is, therefore, most important that all specimens for examination should be collected as soon as possible after death and should where necessary be immediately preserved in a suitable fixative.

- 1.1 ***Specimens for histological examination.***—Histological studies are often a great diagnostic value in confirming microscopic diagnoses, in demonstrating microscopic lesions, in determining the more exact nature of lesions and in deciding their age or whether they are of ante or post mortem origin.

Select specimens carefully from the most suitable areas of tissue. These should be sufficiently large to be representative of the lesions. Cut in thin slices with flat parallel sides and about 5–7 mm thick. Handle gently so as to cause the minimum of tissue distortion. Place in suitable glass jars with watertight closures and completely immerse in a suitable fixative. [A suitable fixative for general use is formol saline (10 per cent formalin in 1 per cent sodium chloride solution)]. Do not add any form of alcohol because this hardens the tissue.

If a whole organ is sent for examination, and if hollow, pack the cavities with cotton wool to preserve the shape. If they are solid, their blood vessels may be injected with fixative. Then place them in suitable sized containers with watertight closures, e.g. Ball jars, and completely immerse in the fixative.

- 1.2 ***Specimens for microscopic examination for presence of sperms.***— In cases of suspected rape collect specimens of fluid present in the vaginal fornices or elsewhere on the body suspected to be of

seminal origin as soon as possible after death for microscopic examination for the presence of spermatozoa by collecting such fluid in Pasteur pipettes or on throat swabs. Transfer the specimens to glass slides. Place a drop of fluid from the pipette on a glass slide and gently spread into a thin smear. Do not rub the swab over the glass slide. Make smears on several glass slides and allow to become thoroughly dry by exposure to air at room temperature. Do not dry by heating in a flame. When dried fix the smears by passing the glass slowly, smear side downwards, two or three times through the flame.

1.3 **Specimens for microbiological examination.**— Suitable material for microbiological examination may be collected—

- as thin smears on glass slides for direct microscopic examination (which is of limited value); or
- as material on sterile throat swabs or in stoppered glass containers for cultural or biological examination, which is likely to afford the most useful and complete information. (On occasion it may be desirable to collect the material directly into a bottle of suitable culture medium).

Note: If smears are made on glass slides, thoroughly dry and fix such smears according to the procedure described in paragraph 1.2 of smears for spermatozoa above.

If the material is to be collected for cultural or biological testing, take proper aseptic precautions in its collection by prior searing of the surface of the organ from which the specimen is to be taken with the flat of the blade of a very hot knife or spatula followed by puncture of the organ through the seared surface with a sterile needle and syringe. Take care that neither the organ nor the specimen is contaminated with disinfectant.

In the case of suspected septicaemia, splenic pulp is often the best material for cultural investigation provided that there is no advanced putrefaction of the abdominal organs. When putrefaction is present, specimens of bone marrow may still prove suitable for cultural tests.

1.4 **Specimens for virological investigation.**—If the brain or spinal cord is required for virological studies (the brain only in cases of suspected rabies and the brain and cord in cases of suspected poliomyelitis) these organs, if there is to be any undue delay in their delivery to the laboratory should be preserved in *neutral glycerin* after removal of such specimens as may be required for histological examination.

If lungs are to be submitted for virological investigation for the presence of respiratory viruses, remove them from the body as soon as possible after death and deliver immediately to the laboratory after suitable specimens for histological examination have been taken and, if there is likely to be any delay in their delivery, preserve them by placing them in watertight containers surrounded by ice or dry ice.

1.5 **Specimens for serological examination.**—Occasionally specimens of post mortem blood may be of value in determining by the demonstration of specific antibodies that the deceased suffered from a particular infectious disease of microbiological or virological origin.

Specimens of blood may also be required for testing to determine the deceased's blood group. Take such specimens routinely in all homicide cases. Send specimens of blood for appropriate testing in all cases in which it is suspected that an incompatible blood transfusion has been given.

Blood for serological tests is best collected aseptically in 5 ml amounts with a sterile needle and syringe, after opening the body, either from an iliac vein or from the right auricle or the great veins draining into it.

Note: Blood obtained from the body cavities is contaminated and useless.

1.6 **Specimens for biochemical investigation.**—Because of the profound biochemical changes that occur in the body during the periods of death agony and molecular death, many biochemical tests of proved clinical diagnostic value in the living are of no definite diagnostic value when performed on post mortem specimens. Specimens of cerebrospinal fluid collected by cisterna magna puncture before the cranial cavity is opened may, however, give reasonably reliable and significant diagnostic results in respect of the sugar, ketone and urea content if collected within 24 hours of death. Specimens of urine, if the bladder is not empty, may prove of diagnostic value. As much urine as possible should be collected, by puncture of the bladder with a clean needle and syringe, into a suitably sized clean bottle with a watertight closure.

In cases of death due to suspected drowning, the determination of *inter alia* the chloride levels in specimens of blood collected separately from the right and left chambers of the heart may prove of diagnostic value if collected within 24 hours of death and preferably within 12 hours. If a longer period elapses the redistribution of electrolytes which occurs between the extra- and intracellular fluids during the stage of molecular death may make the interpretation of the results very difficult.

- 1.7 **Supply of specimen containers.**—The most suitable containers for the above-mentioned tests are glass bottles of the McCarthy type with metal screw-caps and rubber cap liners. All containers must be chemically clean and all those used for microbiological specimens must be sterile. Those for chemical specimens should contain sodium fluoride for anti-enzymatic purposes.

Suitable types of containers for the various types of specimens (histological, microbiological and biochemical) may be obtained, on application, from the nearest laboratory providing these services.

- 1.8 **Labelling of slides and specimen containers.**—Clearly label all glass slides on which smears have been made and all containers of specimens for special laboratory examination for medico-legal purposes with the following particulars at the time the smears are made or the specimens collected:

- The name of the deceased; or post mortem number;
- the nature of the specimen;
- the date of its collection; and
- the signature of the responsible medical practitioner.

1.9 **The packaging of specimens**

1.9.1 **Smears on glass slides.**—Wrap each slide separately in tissue paper. Pack the slides surrounded by cotton wool in a suitably sized box. Firmly secure the lid. Wrap this box in stout brown paper, and secure effectively by means of string, tape or scotch tape. Alternatively, pack the glass slides between two hard flat supports, e.g. cardboard, hardboard or plywood before wrapping.

1.9.2 **Specimen containers.**—Secure the closures on the containers firmly to prevent any leakage of contents. Pack each container in a stout cardboard, wooden or metal box of suitable size which has been surrounded by sufficient cotton wool to minimise the chances of breakage during transit and to absorb effectively any escaped fluid should breakage occur. Secure the lid of the box firmly and wrap the box in stout brown paper and effectively fix with string, tape or scotch tape.

- 1.10 **Covering letter.**—If applicable (e.g. in cases of poisoning) send a letter to the laboratory in respect of all the specimens which are submitted. Use forms *SAP 387 (a) and (b)* and/or *SAP 384*.

- 1.11 **The despatch of specimens.**—All specimens for special laboratory investigation for medico-legal purposes should be packed and handed directly by the medical practitioner conducting the post mortem examination to the police officer investigating the circumstances of the death for urgent despatch to the laboratory as soon as possible after their collection and a signed receipt for the package should be obtained from the police officer. Retain the receipt in case it should be required by a court. Hand the covering letter for the specimens to the police officer at the same time.

The specimens and the covering letter may be delivered directly to the laboratory by a special police messenger or forwarded to the laboratory by registered or certified post.

The medical practitioner may obtain a list of laboratories from his regional consultant.

Note: The police officer is responsible for the sealing and dispatching of the specimens.

2. **Toxicology specimens**

- 2.1 **Specimen for analysis of ethyl alcohol content.**—Specimens of cerebrospinal fluid, vitreous humor or blood may be submitted for analysis of their alcohol content to help determine whether the deceased was under the influence of alcohol at the time of his death.

If the process of dying is protracted over many hours, after a given event, the medico-legal significance of these examinations is greatly diminished because the deceased will have eliminated a certain amount of alcohol during this period. Specimens should, therefore, only be sent for analysis if death has followed within a few hours of the event in relation to which it is desired to prove that the deceased was intoxicated. Alcohol can possibly be produced after death.

The analysis of gastric contents for ethyl alcohol content is of little or no medico-legal value, since such tests may merely indicate that the deceased has consumed alcohol shortly before his death and they do not indicate the amount that he had absorbed and which was effecting him. Furthermore the position is complicated by the fact that yeast fermentation of stomach contents after death may lead to the post mortem production of alcohol. Such specimens should therefore, not generally be submitted for examination.

The submission of urine specimens for determination of alcoholic content is not recommended. Half a brain could be submitted in exceptional circumstances.

- 2.1.1 *Specimens of blood.*—Because early putrefactive changes may render the interpretation of the results of blood alcohol tests unreliable, collect specimens for such tests from the body as soon as possible after death and before discernible putrefaction has set in.

As localised diffusion of alcohol from the stomach into the surrounding tissue may occur after death and as some oxidation of alcohol in the liver may occur during the period of molecular death, do not collect post mortem specimens of blood for analysis for alcohol content from the abdominal or thoracic veins but from the peripheral veins, e.g. the iliac or femoral.

Taking aseptic precautions, collect the specimens by means of clean, sterile syringes (*not to be sterilised with alcohol*).

Each specimen should consist of not less than 10 ml of blood. The 15 ml bottles containing potassium oxalate and sodium fluoride which are supplied by the laboratories to district surgeons for the collection of samples of blood from living persons of being under the influence of alcohol must be used for the post mortem specimens.

- 2.1.2 *Specimens of cerebrospinal fluid and vitreous humor.*— 10ml and 4 ml respectively—may be submitted. Use the same container as in the case of blood.

- 2.1.3 *The labelling, packing and despatch of specimens for analysis of alcohol content.*—All specimens for analysis of ethyl alcohol content must be labelled, packed and sealed and the package labelled in accordance with the respective provisions of paragraphs 1.8—1.10 in respect of pathology specimens.

2.2 *Specimens in cases of suspected fatal poisoning*

- 2.2.1 *When requested.*—Because of the large amount of highly specialised work usually involved in toxicological analysis and their great expense it is desirable that unnecessary toxicological investigations should not be sought. Toxicological analyses should, therefore, not be routinely requested simply because the medical practitioner has failed to demonstrate a satisfactory cause of death at post mortem examination.

- 2.2.2 *Decision to send specimens.*—The decision as to whether specimens are to be submitted for toxicological analysis should, therefore, depend upon a careful assessment of all available facts in respect of the death, viz—

- A consideration of the circumstances under which the death occurred with special reference to the clinical signs developed by the deceased immediately prior to his death, the findings of the post mortem examination and the results of the police enquiries.

Note: Toxicological analyses should, therefore, be regarded not as a preliminary but as a sequel to police investigation.

- 2.2.3 *Request for toxicological analysis.*— Because the decision as to whether or not specimens should be submitted for toxicological analysis depends upon an assessment of both the medical and the police evidence, such examinations should only be recommended if a consideration of all available evidence indicates that such an investigation appears to be desirable in the interests of justice.

- 2.2.4 *Selection of specimens for toxicological analysis.*— If, from his post mortem examination, a medical practitioner is of the opinion that death may have been or was due to poisoning and that a toxicological analysis is desirable, he should carefully select and remove such specimens for analysis as he considers necessary.

- 2.2.4.1 *Routine specimens.*— In the majority of cases of poisoning the poison has been taken by mouth and is absorbed from the stomach and upper portions of the small intestine, is concentrated in the liver and is chiefly eliminated through the kidneys. In cases of suspected fatal poisoning in which toxicological analysis appears desirable, submit the following specimens routinely for examination:

- The stomach and its contents
- the whole liver (without the gallbladder)
- both whole kidneys.

- 2.2.4.2 *Other specimens.*— Other specimens which may be desirable according to circumstances to submit for analysis are:

- Specimens indicating the nature of the poison—submit any available specimen of food, drink, medicine or other medium in which it is suspected the poison may have been

administered, or drugs, chemicals, plants, herbs or other substances which it is suspected may have been the source of the poison for analysis. These specimens will normally be collected by the police officer investigating the circumstances of the death and he is advised that, before forwarding such specimens, he should consult the district surgeon, pathologist or chemist as to what specimens he should submit. When submitting such specimens he should, in his written request for analysis, furnish as much information as possible as to why he thinks these specimens may be the source of the suspected poison and of their origin.

Note: These specimens are of great importance for the laboratory and must, if feasible, always be provided.

Vomiting is often an early sign of poisoning and much of the poison which has been taken may be rejected in the vomitus in an unaltered form. Analysis of the vomitus may thus afford very useful information as to whether poison was ingested and, if so, in what form. Only material vomited at a relatively early stage in the attack is likely to contain significant amounts of poison and late specimens of material obtained at the end of repeated bouts of vomiting may show little or no poison. Stomach washings which were collected shortly after the onset of symptoms may also be of value in the detection of poisoning.

Poisons are frequently concentrated and excreted in the urine, from which they may be readily isolated and identified. If upon post mortem examination the bladder is found to contain an appreciable amount of urine, this urine should be collected for analysis.

In cases in which the principal action of the poison is on the nervous system, e.g. barbiturates, it may be desirable to submit the brain for analysis.

In cases of poisoning, including poisoning with gases that combine with the blood, e.g. carbon monoxide, it is essential to submit an adequate sample of blood for analysis.

About a week after its absorption arsenic may be deposited in significant amounts in the hair and nail roots. These deposits tend to remain localised in segments which are carried along the length of the hair and nails as they grow. Analysis of hair and nails may thus prove of great value in confirming the diagnosis of arsenical poisoning, particularly in subacute and chronic cases and may indicate approximately when the arsenic was absorbed and on how many different occasions.

The intestines should always be removed and opened at post mortem examination in cases of suspected poisoning and their contents and mucous membrane surfaces should be carefully inspected for the presence of any abnormalities or lesions.

Occasionally poison may be administered as an enema. In such cases the pelvic colon and rectum should, after being ligatured, be removed and then opened in a clean glass or porcelain dish. Any abnormalities should be noted and the mucous membrane surface inspected. The colon and rectum and their contents should be submitted for analysis. In all cases of suspected poisoning, even when the poison does not appear to have been administered by an enema, the colon should be routinely removed, opened and its mucous membrane surface inspected. It should also be remembered that in cases of heavy metal poisoning, some of the poison may be excreted by the colon and cause erosions of its mucous membrane.

Occasionally poison may be administered through other organs or tissues. Thus poison may be administered by injection into the subcutaneous tissues of muscles or may be administered through the genital tract in cases of abortion. In such cases the appropriate tissues or organ should be submitted for analysis.

Note: The decision as to what specimens to send for toxicological analysis should therefore be made in each case by the medical practitioner in accordance with the circumstances.

2.3 Examination of specimens for the possible presence or absence of pathological deviations.—All organs or tissues to be submitted for toxicological analysis should be carefully examined when they are removed before they are packed, since otherwise evidence of the lesions or abnormalities that may be

present in them may be lost. Similarly specimens required from these organs or tissues for other types of specialised investigation, e.g. histological, should be timeously collected.

Organs to be submitted for toxicological analysis should also be weighed and measured before they are packed, since it is impossible to do so accurately later.

2.4 **Collection of individual specimens**

2.4.1 *Stomach and contents.*—The stomach and duodenum should be ligatured or clamped at their oesophageal and jejunal ends before removal from the body. These organs should then be removed *en masse* and placed in a clean porcelain or glass dish. They should then be opened by splitting along the lesser curvature of the stomach and the convex border of the duodenum. Any abnormal smell, discoloration or the presence of any abnormal substance should be noted as well as the nature and state of digestion of any food present and the condition of the mucous membrane. Care should also be taken to ensure that the stomach contents are not contaminated, diluted or lost.

2.4.2 *Urine.*—If urine is to be submitted for analysis, a large sample as possible should be obtained by puncture of the intact bladder with a clean needle and syringe.

2.4.3 *Blood.*—If possible at least 50 ml of blood should be submitted for toxicological analysis and should be collected by puncture of suitable large veins, e.g. the superior vena cava or iliac veins, with a clean needle and syringe.

2.4.4 *Hair.*—If hair is to be submitted for analysis, it is most important that an adequate sample be obtained. This should be a bunch of hair about as thick as the thumb and it should be tied into a bundle with tape or string with all the proximal ends at one end, which should be marked accordingly. The hair is best collected by shaving the scalp as close as possible to the skin, though sometimes it may be pulled out by the roots.

2.4.5 *Nails.*—If nails are to be submitted, several whole finger- and toenails should be carefully removed by dissection.

2.5 **Packing the specimens in toxicology boxes**

2.5.1 Every mortuary should possess one or more toxicology boxes. They are large wooden boxes each of which is packed with one large earthenware or plastic jar, one small earthenware or plastic jar, one 200 ml bottle, one 100 ml bottle, one 50 ml bottle and one small 100 ml wide-mouthed jar. These boxes are obtained from the South African Police.

2.5.2 Before the boxes are issued by the laboratory, the containers in them are chemically cleaned. An appropriate amount of sodium fluoride is also added to the 50 and 200 ml bottles (intended respectively for blood and urine specimens) as an anti-enzymatic preservative agent. After the containers have been placed in the box, the lid is sealed at the laboratory with the official laboratory seal.

2.5.3 Before a box is opened for the receipt of specimens the seals should be inspected by the medical practitioner and only boxes with intact seals should be used for packing toxicological specimens. The intact seals are evidence of the fact that the containers inside the box have been properly prepared for the receipt of specimens.

2.6 **The placing of specimens in containers**

- Place the stomach and its contents in the small earthenware or plastic jar and the liver and kidneys in the large earthenware or plastic jar. The liver and other organs may be divided into several pieces in order to facilitate their placements in and removal from the jar. If other organs are to be sent the small toxicology box may be opened and its jar used for the extra specimens.
- The urine specimen is transferred to the 200 ml bottle. If possible fill the bottle.
- The blood specimen is transferred to the 50 ml bottle. Shake well to dissolve the fluoride.
- The hair is packed in the 100 ml jar without any preservative.
- Nails are packed in an envelope.

2.7 **Addition of preservative**

- The only preservative that may be used for toxicological specimens is *ethyl alcohol* (i.e. rectified spirits or ethanol and NOT methylated spirits). The alcohol may be obtained from the South African Police, who have the authority to make local purchases for this purpose.
- Add the alcohol to the jars after the organs have been placed in them; use enough to immerse the

organs completely. Do not add any other preservative and/or alcohol to samples of blood, urine, hair or nails. Every care must be taken to ensure that the specimens are not contaminated at any time with disinfectants or other chemicals.

- Place a sample of the alcohol used as a preservative in the 100 ml bottle. The bottle should be filled with the sample.

- 2.8 **Packing, sealing, labelling and dispatching of specimens.**—The responsibility for packing the specimens obtained at post mortem examination and addition of the preservative, shall be the responsibility of the medical practitioner who conducted the post mortem examination. The mortuary personnel or the police officer investigating the circumstances of the death is responsible for the sealing, labelling and dispatching of the specimens.

Hand the box directly to the police officer investigating the circumstances of the death, who should give a receipt. Retain this receipt for possible later production in court. At the same time hand over form SAP 387 (b) of which part B has already been completed by the medical practitioner who performed the post mortem examination.

- 2.9 **Recleansing of containers and resealing of toxicology boxes**

- When toxicology boxes containing specimens are received at a health chemistry laboratory, after the specimens have been examined, the containers are chemically cleaned and the box resealed before it is returned.
- If a toxicology box has been opened for any reason and then not immediately used for the despatch of specimens, e.g. specimens have been packed and authority not received to forward them for examination, the containers should be emptied if necessary and then the box with its containers should be sent to a health chemistry laboratory, for the cleaning of the containers and the resealing of the box.

- 2.10 **Despatch of the box with specimens.**—As soon as written authority for a toxicological examination is received, the sealed box containing the specimens should be delivered to one of the health chemistry laboratories by the police officer conducting investigations in to the circumstances of the death or by a special police messenger and a receipt for the delivery thereof should be obtained.

- 2.11 **Covering documents.**—Every specimen or set of specimens forwarded to a health chemistry laboratory for toxicological examination for medico-legal purposes in connection with a death must be accompanied, *inter alia*, by fully completed forms SAP 387 (a) and (b) of which Part B has been completed by the medical officer who performed the post mortem examination.

- 2.12 A list of health chemistry laboratories can be obtained from the regional consultant.

- an inspection of the dead body.
- 16 If after the above investigation, the authorised person is of the opinion that the death was exclusively due to natural causes, a dissection of the body may be unnecessary and a certificate (form BI1663) may be issued, stating the cause of death to the best of his/her knowledge.
- 17 If after the above investigation, the cause of death remains obscure and the authorised person is unable to issue a death certificate stating the cause of death, an autopsy should be performed.
- 18 If the above investigation suggests that the death may have been due to unnatural causes, the case should be regarded as falling under the Inquests Act. These cases usually represent cases of sudden unexpected or unattended death. Special care should be taken in cases where the death was not attended by a person with medical background, in cases where advanced decomposition is present, or cases where minimal information is available.

Deaths which fall under the Inquests Act (Unnatural Deaths):

- 19 If a partial dissection reveals that the death was unquestionably due to natural causes, further dissection is not essential and a certificate (form BI 1663) stating the cause of death must be issued. In addition, a brief autopsy report must be compiled.
- 20 If the death appears to be due to unnatural causes, especially if there is a possibility that criminal proceedings may follow, the authorised person should perform a complete autopsy as per paragraphs 33 - 38. It is advised that this procedure should be followed in all cases of doubt.

Deaths associated with anaesthesia

- 21 Section 56 of the Health Professions Act stipulates that the death of a person whilst under the influence of a general or local anaesthetic, or to which the administration of an anaesthetic has been a contributory cause of death, must be regarded as a death due to unnatural causes.
- 22 The investigation of such death should be managed in consultation with the most senior regional or provincial forensic pathologist. This consultation can include, but is not limited to, a telephonic consultation.
- 23 Any death reported under this section, whatever its apparent cause clinically or by post mortem examination, must always be regarded as a death due to unnatural causes. A complete post mortem examination must be performed in all these cases as per paragraphs 33 - 38.

Deaths of persons in custody

- 24 For the purpose of this section, "custody" means: the period starting from detention / arrest by a law enforcement agency, until release or conviction, which includes e.g. the "awaiting trial" detainees in SAPS cells, interview rooms or whilst being transported
- 25 In terms of section 15 ("Death in Prison") of the Correctional Services Act (111 of 1998):
 - (1) Where a prisoner dies and a medical practitioner cannot certify that the death was due to natural causes, the Head of Prison must in terms of section 2 of the Inquests Act, 1959 (Act 58 of 1959), report such death
 - (2) Any death in prison must be reported forthwith to the Inspecting Judge who may carry out or instruct the Commissioner to conduct any enquiry
 - (3) The Head of Prison must forthwith inform the next of kin of the prisoner who has died or, if the next of kin are unknown, any other relative
- 26 The medico-legal investigation of unnatural or suspicious deaths in custody should be carefully managed. In cases of death, apparently due to unnatural causes of persons in custody, the Chief Specialist in forensic pathology of the region where he acts as consultant must be informed without delay, whereupon he will advise about the further management of the case, which may include designating another specialist or forensic medical officer to do the medico-legal investigation of death. This should preferably include attendance of the scene of death by a medical practitioner.
- 27 In cases of deaths in custody, the post mortem examination should only be performed once the forensic medical practitioner has been adequately informed about the relevant history and circumstances of death. In addition, the next of kin of the deceased should be been informed of the death before the autopsy, provided that there is no undue delay in the performance of the autopsy.

Deaths that fall under the Mines and Works Act, Act 78 of 1973

ANNEXURE E

(summarised CV)

PROFESSIONAL CREDENTIALS AND CONTACT DETAILS OF CONSULTANT

- I. **Full names:** Segaran Ramalu Naidoo (known as **Steve**), ID No 590406 5042 08 5.
- II. **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.
- III. **Qualifications:** **MB ChB (Natal); D For Med (CMSA); MMed Forensic Pathology (Natal); MFFLM (Royal College of Physicians of London)**
- IV. **Contact details:** OFFICE: 25 Seaside Drive, Seaside, Tongaat Beach 4399, Durban, South Africa; BUSINESS POSTAL: PO Box 95, Desainagar 4405, Durban, South Africa; Tel: [+27 32 943 1143](tel:+27329431143); Mobile: [+27 82 904 1143](tel:+27829041143); Fax: [+27 86 530 6604](tel:+27865306604); stevenaidoo11@gmail.com
- V. **Experience:**
 - a. As at 2020 I have 37 years of experience in forensic pathology, 29 years of which were as a specialist between 1990 and 2019.
 - b. For 18 years, I was employed on the joint academic staff of the University of KwaZulu-Natal (UKZN) between 1990 and 2010.
 - c. For 8 years (2003 – 2011), I was employed as Associate Professor and Head of the UKZN Department of Forensic Medicine.
 - d. I currently am, and have been, in private/independent practice for my own account since March 2012.
- VI. **Affiliations:** Member of several professional societies; past Honorary Research Fellow at the School of Law at UKZN until January 2016, First Chair of the African Network (now Society) of Forensic Medicine (ASFM), past Member of the Forensic Advisory Board of the International Committee of the Red Cross (ICRC); past Member of the ministerial National Forensic Pathology Services Committee (NFPSC) of the National Department of Health, South Africa; Expert (current) listed on the Justice Rapid Response Association (Geneva, Switzerland).
- VII. **Notable additional professional activities since in independent practice:**
 - i. Conducted regular training workshops for the Legal Aid SA Board to their legal professionals representing indigent clients on “Understanding and Interpreting Medical Findings in Sexual Offences”.
 - ii. Forensic Pathologist assisting the Legal Resources Centre & the Commission of Inquiry into the deaths of miners, from 2012 onwards.

- iii. Attended and presented at Network of African National Human Rights Institutions (NANHRI), April 2012, Johannesburg, SA: “Torture – Case Studies”.
- iv. Conducted autopsies in Harare, Zimbabwe, on cases of extra-judicial killing (2012) and on torture in detention (2013).
- v. Attended the 4th Annual Meeting of the Forensic Advisory Board of the ICRC in Geneva, Switzerland, May 2013.
- vi. Conducted training workshop on “Forensic Medicine & Human Rights & Torture” for the Independent Medico-Legal Unit (IMLU), Nairobi, Kenya, 17th – 21st November 2014.
- vii. Conducted a workshop on Clinical Forensic Medicine, Kampala, Uganda January 2015.
- viii. Presented 2 papers at the African Society of Forensic Medicine Annual Meeting: Bloemfontein, 06th – 10th March 2017: Topics included one on basal skull fractures and another on Ground-level falls).
- ix. Contributor (author and editorial process) to the “*Forensic Medico-legal Manual for East Africa: A Reference Manual on Selected Topics*” by the Independent Medico-Legal Unit (IMLU), Kenya (2017)
- x. Consulted for the National Prosecuting Authority in SA on reopened inquests into old deaths in political detention and similar.
- xi. Expert on the Justice Rapid Response (JRR) Association, an international body supporting the United Nations and national jurisdictions on international criminal and forensic work:
 - a. Member of Technical Team of Investigators: African Union Commission of Inquiry into South Sudan (AUCISS) – August – October 2014.
 - b. Member of the International Humanitarian Fact Finding Commission (IHFFC) (current work June 2017 onwards) investigating violations of humanitarian law and order in the Eastern Europe.
 - c. Forensic Expert for the Government of The Gambia (West Africa) in their recent humanitarian forensic work with their TRRC (Truth, Reconciliation and Reparations Commission) and criminal investigations: July 2018 – April 2019.
- xii. Contributed to publication “*A Double Harm: Police misuse of force and barriers to necessary health care services*” – Socio-economics Rights Institute (SERI), 2018, after injury analysis investigations.