

(1) Number of pages 4
(2) Date of repair 24-6-43
(3) Initials of the Referencer J.

MADRAS RECORD OFFICE.

Government of Madras.

Public DEPARTMENT.

G.O. No.	1062	Press Mis.
Dated	30. 5.	1883 .

Not to be folded or roughly handled

30TH MAY 1883, No. 1062, PUBLIC.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following paper :—

From Surgeon-General W. R. CORNISH, F.R.C.S., C.I.E., Surgeon-General with the Government of Madras, to the Chief Secretary to Government, dated 15th May 1883, No. 215.

I have the honor to forward, for submission to Government, the accompanying letter from the Chemical Examiner with proposed rules for the guidance of Magisterial, Police, and Medical Officers in the matter of chemico-legal examinations.

2. The employment of methylated spirit for packing suspected substances for analyses would involve the submission of a very large indent by the Medical Store Department on the Home Government, while the Government of India require that efficient substitutes of local manufacture should be used wherever possible, the cost of which does not exceed that of the imported article. I have ascertained from Dr. Rogers that there is no real objection to the use of spirits of wine 60° overproof for the methylated spirit; and as alcohol can be procured in Madras duty free to any extent, I would recommend the substitution of unmethylated spirit for the other wherever it occurs in the rules under submission.

3. It is observed that the Chemical Examiner suggests that the Medical Department should furnish its officers with a form in which to enter the results of *post-mortem* examinations. There is a very complete form in use in the Bengal Presidency, copy of which I forwarded to him to ascertain whether it meets his views, and he has returned it with expression of opinion that it is well adapted for the purpose. I submit a copy for the approval and sanction of Government.

ENCLOSURE.

From T. K. ROGERS, Esq., M.B., F.R.C.S. and F.C.S., Lond., Chemical Examiner, to the Chief Secretary to Government (through the Surgeon-General with the Government of Madras), dated Madras, 11th January 1883, No. 655.

With reference to G.O. No. 696, dated 5th August 1882, Public, I have the honor to state that, after some correspondence with the Surgeon-General with the Madras Government, I have compiled a set of proposed rules for the guidance of Magisterial, Police, and Medical Officers, in the matter of chemico-legal examinations which I now submit for the approval of Government. A printed copy has been forwarded in order to admit of ready perusal, as the MSS. appeared inconvenient on account of the numerous references which were introduced in order to avoid needless repetition.

2. In compiling these rules, I have borrowed very largely from the rules drawn up by Dr. Lyon, the Chemical Examiner in Bombay for the Government of Bombay, and have introduced many additions which an extensive experience has seemed to render desirable.

3. In case of these proposed rules being adopted, I would suggest that Magistrates and Police Officers should be provided with printed forms in which to enter the information with regard to cases of suspected poisoning required in Section 1, paragraph 4, as I believe that with

the aid of printed forms the information required would be given more readily and efficiently. I would also advise that the Surgeon-General with the Madras Government be requested to provide Medical Officers with a form in which to enter the results of *post-mortem* examinations.

4. Should some of these proposed rules not appear to commend themselves to Government, I trust I may be afforded an opportunity of explaining the reasons which induced me to propose them.

CHEMICO-LEGAL EXAMINATIONS.

The following instructions are divided into two sections, viz. :—

SECTION 1.—Containing rules for the guidance of Magisterial and Police Officers.

SECTION 2.—Containing rules for the guidance of Medical Officers. Neither section is complete by itself, the two sections being complementary to one another.

SECTION 1.

The following instructions are issued for the guidance of Magistrates, Superintendents and Assistant Superintendents of Police, with regard to the transmission of substances to the Chemical Examiner for examination, in cases of suspected poisoning, or other cases in which the aid of the Chemical Examiner may be required.

2. In future substances will not be forwarded by Medical Officers to the Chemical Examiner except upon receipt of an order to that effect from a Magistrate, Superintendent or Assistant Superintendent of Police. It will therefore be necessary that orders for the transmission of substances to the Chemical Examiner for analysis should be issued with promptitude. And an order should invariably be granted, if the Medical Officer consider it advisable to obtain the opinion of the Chemical Examiner; whilst on the other hand Magistrates, Superintendents and Assistant Superintendents of Police should issue an order for examination, if they consider it desirable to consult the Chemical Examiner, although the opinion of the Medical Officer be adverse to such a proceeding.

3. Magistrates, Superintendents and Assistant Superintendents of Police, on instructing Medical Officers to forward articles for analyses to the Chemical Examiner to Government, should, at the same time, address the latter officer, quoting the number and date of their order to the Medical Officer, and should furnish the Chemical Examiner with a brief summary of the history of the case.

4. The principal points on which Magistrates, Superintendents and Assistant Superintendents of Police, in cases of suspected poisoning, should furnish information to the Chemical Examiner are as follows :—

- (a) What interval was there between the last eating or drinking and the first appearance of symptoms of poisoning.
- (b) What interval was there between the last eating or drinking and death (if this occurred).
- (c) What were the first symptoms.
- (d) Were any of the following symptoms present? If so, state which :—
 - (a) Vomiting and purging.
 - (b) Deep sleep.
 - (c) Tingling of the skin and throat.
 - (d) Convulsions or twitchings of the muscles.
 - (e) Delirium and clutching at imaginary objects.
 - (f) Were any other symptoms noticed?
- (f) Did any other persons partake of the suspected food or drink, and did they also suffer from similar or other symptoms of poisoning?

5. Any other information available, likely to prove serviceable as a guide to the class of poison administered, should at the same time be furnished.

6. Certificates of chemical analysis are not to be accepted from Medical Officers, as these officers are not in a position to conduct analyses as they should be carried out for judicial purposes. But any Medical Officer who may be provided with a suitable microscope should be able to recognise recent blood stains, and to conduct examinations of suspected seminal stains.

7. In every case of suspected human or cattle poisoning, it is desirable that all the substances requiring analysis should be packed and forwarded to the Chemical Examiner by the nearest Medical Officer. If special circumstances should render it desirable to forward any articles directly to the Chemical Examiner, the instructions given in Section 2, paragraphs 4—12, must be carefully attended to.

8. SUSPECTED BLOOD STAINS.—Articles requiring examination for the presence of blood stains may, if desirable (*vide* paragraph 6), be forwarded direct to the Chemical Examiner, the following rules being strictly attended to :—

- (1) When clothes are sent up, any stains considered to be suspicious should be indicated by means of pencil marks or pins. Stains on walls, floors, the ground, or articles of furniture, &c., are not to be scraped off. But the stained area is to be carefully cut out; and when the material is brittle, as in the case of earth or chunam, it should be carefully wrapped in cotton wool and packed in a box, so that the surface may be preserved from injury.
- (2) All articles requiring examination should be carefully labelled, and each label should bear the signature of the forwarding officer and the number and date of the letter of advice addressed to the Chemical Examiner. All parcels should be carefully sealed by the despatching officer and packed in such a manner that they cannot be opened without destroying the seal. The seal used should be the same throughout, and a private seal, or an official seal which is kept in safe custody. A letter of advice should be separately forwarded to the Chemical Examiner. This letter should contain—
 - (a) An impression of the seal used in closing the packets and description thereof.
 - (b) A list of the articles forwarded and a statement as to how the articles have been forwarded.
 - (c) Information as to whether any of the weapons, clothes, &c., are to be returned after examination.

9. MISCELLANEOUS EXAMINATIONS.—Magistrates on forwarding coins, documents, salines, liquors, &c., to the Chemical Examiner, should follow the instructions laid down in paragraph 8, clause 2, and in Section 2, paragraph 11, so far as they may be applicable, and should be careful to include in their letter of advice to the Chemical Examiner information as to the nature and object of the examination required, and to furnish any other information likely to assist the Chemical Examiner in making the required examination.

10. ANALYSIS OF WATER—*vide* Section 2, paragraph 15.

SECTION 2.—INSTRUCTIONS FOR THE GUIDANCE OF MEDICAL OFFICERS.

Medical Officers in charge of Hospitals and Dispensaries are required to maintain a supply of unmethylated spirit and suitable bottles, &c., in readiness for the transmission of viscera and other matters to the Chemical Examiner when occasion may arise. In cases of suspected poisoning, it is exceedingly important that viscera and other suspected matters liable to rapid decomposition should be placed in spirit as soon as practicable. And every care should be taken lest doubt may be raised in Court as to the identity of articles likely to require examination, or as to the possibility of their having been accidentally contaminated or improperly interfered with.

2. *Post-mortem* examinations are to be made as thoroughly as circumstances will permit whenever desired by Magisterial or Police Officers. Attendance upon midwifery cases or other similar excuses will not exempt Medical Officers from the performance of the too frequently unpleasant, though most important, duty of making a *post-mortem* examination. Advanced decomposition does not prevent the detection of metallic poisons in the body. Hence remains of viscera may be forwarded for examination when the condition of the body is such as to render any attempt at dissection useless.

3. On making a *post-mortem* examination whenever there is any suspicion of poisoning, the stomach should be tied at both ends (a double ligature being applied at the pyloric extremity, so that the contents of the intestines may not escape) and removed from the body in such a manner that its contents may be retained; after removal it should be opened, the contents received into a perfectly clean bottle and the mucous surface of the stomach carefully examined, its appearance noted, and any suspicious particles found adherent thereto should be picked off with a pair of forceps and placed in a separate small phial for transmission. And the mucous membrane of the mouth pharynx and oesophagus should be examined, and any unusual appearance or marks of corrosion thereon carefully noted.

4. In all cases of death from presumed poisoning, the following articles should be forwarded for analysis, each in a separate bottle, unless otherwise indicated. It will, however, be understood that other matters should be forwarded if, in the opinion of the Medical Officer, the special circumstances of any case render such a proceeding advisable :—

- (a) Stomach.
- (b) Contents of the stomach which may, if it be convenient, be put in the same bottle with the stomach.
- (c) Suspicious particles (if any have been found) removed from the mucous membrane of the stomach.
- (d) A portion of the liver, not less than 16 oz. in weight, or the whole liver if it weigh less than 16 oz., and one kidney.

- (e) The vomited matter if any. The earlier and the later vomits should, when practicable, be sent up in different bottles. And the labels should state at what period the matters were emitted. Special directions are given in paragraph 6 for the disposal of vomited matters mixed with earth, &c.
- (f) A specimen of the spirit used. Four ounces is sufficient.

When it is suspected that a vegetable poison has been used, the following matters should also be forwarded:—

- (g) The contents of the small intestines.
- (h) Any urine which may have been separately collected after the commencement of symptoms, or found in the bladder after death.

5. Strong unmetylated spirit should in all cases be added, as laid down in the rules for the transmission of articles for analysis, detailed in paragraph 11, to the contents of bottles A, D, G, H, and also to the contents of bottles B and E, unless it be suspected that alcoholic poisoning has been the cause of death. No spirit need be added to the contents of bottle C. Care should be taken that no vessel containing fluid matters is quite filled.

6. Vomited and purged matters are frequently received by Medical Officers mixed with earth, &c. If the admixture of earth be sufficient to render the evacuated matters dry and inoffensive, they may be packed without spirit in any convenient manner, otherwise they must be packed with spirit. Vomited and purged matters, if they have, as frequently happens, been allowed to fall on the ground, should be carefully scraped up, not taking more earth than is necessary. The superficial scrapings should be packed separately. It is rarely necessary to remove the earth to a depth greater than $\frac{1}{2}$ inch, even in cases of suspected metallic poisoning, unless the soil be of a very loose character. Except when a metallic poison is suspected, it is very rarely necessary to forward purged matters.

7. If articles of food, medicine, &c., suspected to have been the vehicle by which poison has been administered require examination, they should each be packed up separately and spirit invariably added, as in the case of viscera, to such as are liable to decomposition. Fruits, such as the plantain and custard-apple, if suspected to contain poison, should be carefully inspected, and if it should appear that some foreign substance has been inserted, this should be picked out and sent up for examination. If no suspicious substance can be discovered, the fruit should be forwarded.

8. After having made a *post-mortem* examination in a case of suspected poisoning, and having preserved in spirit all articles liable to rapid decomposition, which are likely to require examination, the Medical Officer should report the result of his examination to the Police, and on receipt of an order from a Magistrate, or from a Superintendent or Assistant Superintendent of Police, but not before, forward the viscera of the deceased and such other articles as may require analysis to the Chemical Examiner to Government for examination. In cases where no death has occurred, but where it is suspected that poison has been administered, the Medical Officer having preserved in spirit all articles liable to rapid decomposition, which are likely to require examination, should similarly report the case to the Police, and on receipt of an order from a Magistrate, Superintendent or Assistant Superintendent of Police, forward the vomited matter or contents of the stomach removed by the stomach pump of the affected individual, or other matters requiring analysis, to the Chemical Examiner to Government. Though Magistrates, Superintendents and Assistant Superintendents of Police are required to grant an order for analysis, should the Medical Officer consider such an examination necessary, they can, if they consider it advisable, order viscera, &c., to be sent to the Chemical Examiner, when in the opinion of the Medical Officer such a proceeding may be quite unnecessary.

9. When on receipt of the necessary order a Medical Officer forwards articles to the Chemical Examiner for examination, he should address at the same time a letter to the Chemical Examiner advising him of their despatch. This letter should contain—

- (a) An impression of the seal used in closing the bottles and a description thereof.
- (b) A list of the articles forwarded and a statement as to how the articles have been forwarded.
- (c) The name of the officer from whom the order has been received to forward the articles, and the number and date of such order.
- (d) A detailed account of the *post-mortem* appearances observed.
- (e) If he has seen the case during life, an account of the symptoms observed and a statement of the treatment, if any, adopted.

10. All bottles and packets should be carefully sealed by the Medical Officer, and closed in such a manner that they cannot be opened without destroying the seal. The seal used should be the same throughout, and a private seal, or an official seal, which is always in safe keeping. Each bottle or packet should be labelled and each label should bear the number and date of the letter of advice to the Chemical Examiner relative to the case, as well as a short description of the contents, and should be signed by the Medical Officer.

11. RULES FOR THE TRANSMISSION OF SUBSTANCES FOR ANALYSIS.—Suspected substances may be forwarded by post, carriage bearing, by passenger train, or steamer, or in charge of a Constable. The latter method is recommended in all cases in which wealthy or influential parties are implicated. Officers forwarding viscera, &c., by post, by rail, or steamer, or by Constable to the Chemical Examiner, will be held personally responsible that the following instructions are carefully followed.

Transmission by Post.—When viscera, &c., are forwarded through the post the following rules are to be observed:—

- (1) The suspected viscous or other portion of the body or other substance liable to decomposition requiring to be sent for examination should be enclosed in a glass bottle or well-glazed earthenware jar provided with a well-fitting stopper or sound cork.
- (2) If liable to decomposition, it should be immersed in unmetylated spirits of wine, which should be used in the proportion of one-third of the bulk of the material, and care should be taken that no vessel containing liquid matters is quite filled.

N.B.—The use of spirits of wine in packing viscera should be invariable, whether the season is hot or cold, and care should be taken that common bazaar spirit is not used.

- (3) The stopper or cork should be carefully tied down with bladder, and large corks should be coated over externally with wax, glue or tar. To ascertain that it has been securely closed, the bottle or jar should be placed for five minutes with its mouth down.
- (4) The glass bottle or jar should then be placed in a strong wooden or extra strong tin box, which should be large enough to allow of a layer of raw cotton, at least one inch thick, being put between the bottle or jar and the box.
- (5) The box itself should be encased in common garah cloth, which should be sealed in accordance with the usual rules of the Post Office as to parcels.
- (6) When articles are forwarded by post to the Chemical Examiner to Government, each package should be franked externally with the name and address of the officer forwarding the articles, and a declaration of contents to the officials of the Postal Department is unnecessary, and should not be made.
- (7) At all stations where there is a District Civil Surgeon, the parcels should, when practicable, be sent to the Post Office by that officer, and not by a subordinate officer, but where there is no Civil Surgeon substances may be packed and forwarded direct to the Chemical Examiner by the subordinate officer in charge of the Hospital or Dispensary.

Transmission by Rail or Steamer.—When viscera, &c., are forwarded by rail or steamer, it is unnecessary to encase the box in cloth, but with this exception the rules for forwarding articles through the post must be observed in forwarding articles by passenger train or steamer.

Transmission by Constable.—When viscera, &c., are forwarded in charge of a Constable, it will not be necessary to pack the bottles, &c., in a strong box, in order to protect them from rough handling during transit. But it is desirable that glass bottles containing viscera, &c., should be wrapped in cloth or paper, so as not to be offensive to other passengers.

In every other respect the same rules should be observed as in the transmission of viscera, &c., by rail.

12. SUSPECTED BLOOD STAINS.—Medical Officers are in many instances expected to deal with these cases themselves—*vide* Section 1, paragraphs 6 and 8.

13. SUSPECTED SEMINAL STAINS.—*Vide* Section 1, paragraph 6. As the clothes requiring examination in these cases are usually exceedingly dirty, it is advisable when practicable to cut out any suspicious stains and forward them only for examination instead of the whole garment. In cutting out stains about half an inch of the surrounding cloth should be removed also. For information regarding packing and despatch of letter of advice, see instructions under head of Blood Stains—*vide* Section 1, paragraph 8.

14. CATTLE CASES:—

- (1) Some precautions should be taken to ensure that viscera, &c., are not sent for examination in cases where death obviously occurred from causes other than poison. A careful search should be made for any indications of the presence of a sui; when this mode of poisoning is suspected, and if anything resembling a sui be found, it should be forwarded for examination. A chemical examination of the viscera is useless in cases of sui poisoning, as in such cases poison cannot be detected in the viscera.
- (2) The entire alimentary canal should be opened and its contents inspected for suspicious-looking substances. If any suspicious-looking substance be detected in the alimentary canal, it should be packed in a separate vessel, and spirit should not be added unless necessary for its preservation.

- (3) About two pounds of the contents of the stomach, with about a pound of the contents of the intestines, should be placed in a clean glass or well-glazed earthen vessel or vessels, and strong unmethylated spirit added in the proportion of not less than one-fourth of the apparent bulk of the material, when the contents are nearly dry, but if much liquid be present spirit should be added in the proportion of one-third of the bulk of the material. Also about a pound of the liver and a similar weight of the stomach should be placed in a separate clean glass or well-glazed earthen vessel, and unmethylated spirit should be added in the proportion of one-third of the bulk of the material. A sample of the spirit used in packing should also be sent. Four ounces are sufficient.
- (4) Dried cattle dung may be sent without addition of spirit.
- (5) Suspected cattle poisons rarely require the addition of spirit for their preservation, and spirit should not be used unless necessary.
- (6) The instructions given as to the packing and transmission to the Chemical Examiner of substances requiring chemical examination in cases of suspected human poisoning are applicable to these cases and should be carefully attended to, and the same precautions must be adopted as to sealing and labelling the different vessels—*vide* paragraphs 9, 10 and 11.
- (7) When under instructions received from a Magistrate or Superintendent or Assistant Superintendent of Police a Medical Officer forwards articles to the Chemical Examiner for examination, he should at the same time address and forward separately a letter to the Chemical Examiner advising their despatch. This letter should contain—
- (a) An impression of the seal used in closing the vessels, and a description thereof.
 - (b) A list of the articles forwarded and information as to how the articles have been forwarded.
 - (c) The name of the officer from whom the order has been received to forward the articles and the number and date of such order.
 - (d) Information as to the number and kind of animals affected and number of deaths.
 - (e) Any information obtainable as to *post-mortem* appearances, nature and duration of symptoms and which may be likely to indicate the probable nature of the poison.
15. ANALYSIS OF WATER.—Before forwarding a sample of water to the Chemical Examiner for analysis, it is necessary to write to the Chemical Examiner and ascertain when it will be convenient to receive the sample or samples which may require to be examined, it being desirable that samples should be examined shortly after they are received at the laboratory.
- (2) The duty of collecting the samples should always be undertaken by a responsible person. The employment of peons or servants for this purpose is strictly prohibited. The bottles used should be thoroughly cleansed, and then well washed out twice with water from the same source it is intended to fill them from just before finally filling them.
 - (3) Glass-stoppered bottles are best, but if those are not procurable, new corks are to be used with the ordinary quart wine bottle, of light-colored glass. In filling the bottles a little space should be left between the cork and the water.
 - (4) Not less than one gallon of each sample of water is to be forwarded.
 - (5) Each bottle to be labelled with the name of the well and date of collection.
 - (6) On forwarding water for analysis the Medical Officer should, at the same time, forward separately a letter to the Chemical Examiner. This letter should contain—
 - (a) An impression and description of the seal used in closing the bottles.
 - (b) Information as to the number of samples sent, and a statement as to how the samples have been forwarded.
 - (c) An explanation as to the reason for which the examination is required, and information as to by whom it is desired.
 - (d) A statement as to the source from which each sample was collected, and by whom and when each sample was collected.

MADRAS,
11th January 1883.

(Signed) T. K. ROGERS, M.B., F.R.C.S.,
Chemical Examiner to Government.

ORDER—dated 30th May 1883, No. 1062, Public.

The Governor in Council approves of the proposed rules for the guidance of Magisterial, Police and Medical Officers in the matter of chemico-legal examinations, with the modification suggested by the Surgeon-General as to the substitution of unmethylated for methylated spirit, and directs that the rules be printed and circulated to the officers concerned.

2. The form submitted by the Surgeon-General is also approved and will be struck off at the Government Press, on which an indent will be made for such number of copies as may be required for distribution among the officers of the Medical Department. The Chemical Examiner will send direct to the Superintendent a form containing the information in regard to cases of suspected poisoning required in Section 1, paragraph 4, to be printed and circulated to Police and Magisterial Officers.

(True Extract.)

Chief Secretary.

To the Surgeon-General with the Government of Madras.
 „ the Chemical Examiner.
 „ all District Magistrates
 „ the Inspector-General of Police.
 „ the Superintendent, Government Press, with form.
 „ the Chief Presidency Magistrate.
 „ the Revenue Department.

Exd. C. Howarth.

Govt. of (1883) Madras.

PUBLIC.

Issued

Recd.

Encl.

G.O., 30th May 1883, No. 1062.

MAY.

Chemico-legal Examinations.

Approving of the proposed rules for the guidance of Magisterial, Police and Medical Officers in the matter of — with certain modification suggested by the Surgeon-General with the Government of Madras.

CHEMICAL EXAMINER'S OFFICE,
Madras, 11th January 1883.

From

T. K. ROGERS, Esquire, M.B.—F.R.C.S., & F.C.S., Lond.,

CHEMICAL EXAMINER,
Madras.

To THE Surgeon General
With Government of
Madras.

SIR,

I have the honour to enclose
a letter with ~~an~~ enclosure, addressed
to the Chief Secretary to Government,
for favour of early submission
with any remarks you may
wish to make thereon.

I have the honour to be
Sir

Your Most Obedt Servant
T K Rogers M. B. F. R. C. S.
Chemical Examiner

214 1883

My

From

The Chemical Examiner
Madras

To

The Surgeon General
With the Madras Govt.
In Dindigul

No 654

Dated 11th Jan'y 1883

Recd.

Enclosures

Subject.

Forwarding a letter
to the Chief Secretary
to Government with
regard to the introduc-
tion of new Rules
for Chemico-legal
Examinations.

Put (6) 11/1/83

Put 1062 of 20/1/83

OFFICE OF SURGEON-GENERAL
WITH THE GOVERNMENT OF MADRAS,
Madras, 15th May 1883.

No. 215

From M. A. Cornish Esq. F.R.C.S., F.R.S.

THE SURGEON-GENERAL WITH THE
GOVERNMENT OF MADRAS,

To

THE CHIEF SECRETARY TO GOVERNMENT,

DEPARTMENT.

Sir,

I have the honor to forward for
submission to Government, the accompanying
better from the Chemical Examiner, with
proposed rules for the guidance of Magisterial,
Police and Medical Officers in the matter
of Chemico-legal Examinations.

2. The employment of methylated spirit
for packing suspected substances for analysis,
would involve the submission of a very large
indent by the Medical Store Department on
the Home Government, while the Government
of India require that efficient substitutes of
local manufacture should be used wherever
possible, the cost of which does not exceed
that of the imported article. I have as-
certained from Dr. Rogers that there is no
real objection to the use of spirits of wine 60°
over proof for the methylated spirit, and as
alcohol can be procured in Madras duty
free to any extent, I would recommend the
substitution of unmethylated spirit for the other
wherever

wherever it occurs in the rules under sub-
mission.

3. It is observed that the Chemical
Examiner suggests that the Medical Depart-
ment should furnish its Officers with a
form in which to enter the results of Post
Mortem Examinations. There is a very complete
form in use in the Bengal Presidency, copy
of which I forwarded to him to ascertain
whether it meets his views, and he has
returned it with expressions of opinion that
it is well adapted for the purpose. I
submit a copy for the approval and sanction
of Government.

I have the honor to be,
Sir,
Your most ob^t. servant

Wm Cornish
Surgeon-General
with the Govt of Madras.

CD

John H. 42
(1883) DEPARTMENT.

From

THE SURGEON-GENERAL WITH THE
GOVERNMENT OF MADRAS,

Madras.

No. *215*

Dated *15th May* 1883.

Recd. *17*

No.

CURRENT NO. *15*

SUBJECT

*Letter with
Chemical
analysis of
fallacious
Medical
Opinion of Chemist*

48
Forwarded to the Chief Secretary to Government
with Chemical Examiner's letter No. 655 dated
11th January 1883.
CHEMICO-LEGAL EXAMINATIONS.

The following instructions are divided into two sections, viz:—

SECTION I.—Containing rules for the guidance of Magisterial and Police Officers.

SECTION II.—Containing rules for the guidance of Medical Officers. Neither Section is complete by itself, the two sections being complementary to one another.

Section I.

The following instructions are issued for the guidance of Magistrates, Superintendents and Assistant Superintendents of Police with regard to the transmission of substances to the Chemical Examiner for Examination, in cases of suspected poisoning, or other cases in which the aid of the Chemical Examiner may be required.

2. In future substances will not be forwarded by Medical officers to the Chemical Examiner, except upon receipt of an order to that effect from a Magistrate, Superintendent or Assistant Superintendent of Police. It will therefore be necessary that orders for the transmission of substances to the Chemical Examiner for Analysis, should be issued with promptitude. And an order should invariably be granted, if the Medical officer consider it advisable to obtain the opinion of the Chemical Examiner; whilst on the other hand Magistrates, Superintendents and Assistant Superintendents of Police should issue an order for examination, if they consider it desirable to consult the Chemical Examiner, although the opinion of the Medical Officer be adverse to such a proceeding.

3. Magistrates, Superintendents and Assistant Superintendents of Police on instructing Medical Officers to forward articles for analyses to the Chemical Examiner to Government should, at the same time, address the latter officer, quoting the number and date of their order to the Medical Officer, and should furnish the Chemical Examiner with a brief summary of the history of the case.

4. The principal points on which Magistrates, Superintendents and Assistant Superintendents of Police, in cases of suspected poisoning, should furnish information to the Chemical Examiner, are as follows:—

- What interval was there between the last eating or drinking and the first appearance of symptoms of poisoning.
- What interval was there between the last eating or drinking and death (if this occurred).
- What were the first symptoms.
- Were any of the following symptoms present? If so, state which:—
 - Vomiting and purging.
 - Deep sleep.
 - Tingling of the skin and throat.
 - Convulsions or twitchings of the muscles.
 - Delirium and clutching at imaginary objects.
 - Were any other symptoms noticed?
 - Did any other persons partake of the suspected food or drink, and did they also suffer from similar or other symptoms of poisoning?

5. Any other information available, likely to prove serviceable as a guide to the class of poison administered, should at the same time be furnished.

6. Certificates of Chemical Analysis are not to be accepted from Medical officers as these officers are not in a position to conduct analyses as they should be carried out for judicial purposes. But any Medical officer who may be provided with a suitable microscope, should be able to recognise recent blood stains, and to conduct examinations of suspected seminal stains.

7. In every case of suspected human or cattle poisoning it is desirable that all the substances requiring analysis should be packed and forwarded to the Chemical Examiner, by the nearest Medical Officer. If special circumstances should render it desirable to forward any articles directly to the Chemical Examiner, the instructions given in Section II, paras 4—12 must be carefully attended to.

8. **Suspected Blood Stains.**—Articles requiring examination for the presence of blood stains may, if desirable, (vide para 6) be forwarded direct to the Chemical Examiner, the following rules being strictly attended to:—

- (1.) When clothes are sent up, any stains considered to be suspicious should be indicated by means of pencil marks or pins. Stains on walls, floors, the ground, or articles of furniture &c., are not to be scraped off. But the stained area is to be carefully cut out; and when the material is brittle as in the case of earth or chunam, it should be carefully wrapped in cotton wool and packed in a box so that the surface may be preserved from injury.
- (2.) All articles requiring examination should be carefully labelled, and each label should bear the signature of the forwarding officer and the number and date of the letter of advice addressed to the Chemical Examiner. All parcels should be carefully sealed by the despatching officer and packed in such a manner that they cannot be opened without destroying the seal. The seal used should be the same throughout, and a private seal, or an official seal which is kept in safe custody. A letter of advice should be separately forwarded to the Chemical Examiner. This letter should contain:
 - a. An impression of the seal used in closing the packets and description thereof.
 - b. A list of the articles forwarded and a statement as to how the articles have been forwarded.
 - c. Information as to whether any of the weapons, clothes, &c., are to be returned after examination.

9. **Miscellaneous Examinations.**—Magistrates on forwarding coins, documents, salines, liquors, &c., to the Chemical Examiner, should follow the instructions laid down in para 8, clause 2, and in Section II, para 11, so far as they may be applicable; and should be careful to include in their letter of advice to the Chemical Examiner, information as to the nature, and object of the examination required, and to furnish any other information likely to assist the Chemical Examiner in making the required examination.

10. **Analysis of Water**—vide Section II, para 15.

Section II.—Instructions for the guidance of Medical Officers.

Medical Officers in charge of Hospitals and Dispensaries are required to maintain a supply of methylated spirit and suitable bottles, &c., in readiness for the transmission of viscera and other matters to the Chemical Examiner when occasion may arise. In cases of suspected poisoning it is exceedingly important that viscera and other suspected matters liable to rapid decomposition should be placed in spirit as soon as practicable. And every care should be taken lest doubt may be raised in Court as to the identity of articles likely to require examination, or as to the possibility of their having been accidentally contaminated or improperly interfered with.

2. Post-mortem examinations are to be made as thoroughly as circumstances will permit, whenever desired by Magisterial or Police officers. Attendance upon Midwifery cases or other similar excuses will not exempt Medical Officers from the performance of the too frequently unpleasant though most important duty of making a post-mortem examination. Advanced decomposition does not prevent the detection of Metallic Poisons in the body. Hence remains of viscera may be forwarded for examination; when the condition of the body is such as to render any attempt at dissection useless.

3. On making a post mortem examination whenever there is any suspicion of poisoning the stomach should be tied at both ends (a double ligature being applied at the pyloric extremity so that the contents of the intestines may not escape,) and removed from the body in such a manner that its contents may be retained; after removal it should be opened, the contents received into a perfectly clean bottle and the mucous surface of the stomach carefully examined, its appearance noted and any suspicious particles found adherent thereto

should be picked off with a pair of forceps and placed in a separate small phial for transmission. And the mucous membrane of the mouth pharynx and oesophagus should be examined and any unusual appearance or marks of corrosion thereon carefully noted.

4. In all cases of death from presumed poisoning, the following articles should be forwarded for analysis, each in a separate bottle unless otherwise indicated. It will, however, be understood that other matters should be forwarded if, in the opinion of the Medical officer, the special circumstances of any case render such a proceeding advisable:—

- A. Stomach.
 - B. Contents of the stomach which may, if it be convenient, be put in the same, bottle with the stomach.
 - C. Suspicious particles (if any have been found) removed from the mucous membrane of the stomach.
 - D. A portion of the liver not less than 16 oz. in weight, or the whole liver if it weigh less than 16 oz., and one kidney.
 - E. The vomited matter if any. The earlier and the later vomits should, when practicable, be sent up in different bottles. And the labels should state at what period the matters were emitted. Special directions are given in *Para 6* for the disposal of vomited matters mixed with earth, &c.
 - F. A specimen of the spirit used. Four ounces is sufficient.
- When it is suspected that a vegetable poison has been used, the following matters should also be forwarded:—*
- G. The contents of the small intestines.
 - H. Any urine which may have been separately collected after the commencement of symptoms, or found in the bladder after death.

5. Strong methylated spirit should in all cases be added, as laid down in the rules for the transmission of articles for analysis, detailed in para 11. to the contents of bottles A, D, G, H, and also to the contents of bottles B, and E, unless it be suspected that Alcoholic poisoning has been the cause of death. No spirit need be added to the contents of bottle C. Care should be taken that no vessel containing fluid matters is quite filled.

6. Vomited and purged matters are frequently received by Medical Officers mixed with earth, &c. If the admixture of earth be sufficient to render the evacuated matters dry and inoffensive, they may be packed without spirit in any convenient manner, otherwise they must be packed with spirit. Vomited and purged matters, if they have, as frequently happens, been allowed to fall on the ground should be carefully scraped up not taking more earth than is necessary. The superficial scrapings should be packed separately. It is rarely necessary to remove the earth to a depth greater than $\frac{1}{2}$ inch, even in cases of suspected metallic poisoning, unless the soil be of a very loose character. Except when a metallic poison is suspected it is very rarely necessary to forward purged matters.

7. If articles of food, medicine, &c., suspected to have been the vehicle by which poison has been administered require examination, they should each be packed up separately and spirit invariably added, as in the case of viscera, to such as are liable to decomposition. Fruits, such as the Plantain and Custard-apple, if suspected to contain poison, should be carefully inspected and if it should appear that some foreign substance has been inserted, this should be picked out and sent up for examination. If no suspicious substance can be discovered, the fruit should be forwarded.

8. After having made a post-mortem examination in a case of suspected poisoning, and having preserved in spirit all articles liable to rapid decomposition, which are likely to require examination, the Medical Officer should report the result of his examination to the Police, and on receipt of an order from a Magistrate, or from a Superintendent or Assistant Superintendent of Police, but not before, forward the viscera of the deceased and such other articles as may require analysis to the Chemical Examiner to Government for examination. In cases where no death has occurred, but where it is suspected that poison has been administered, the Medical Officer having preserved in spirit all articles liable to rapid decomposition, which are likely to require examination, should similarly report the case to the Police, and on receipt of an order from a Magistrate, Superintendent or Assistant Superintendent of Police, forward

the vomited matter or contents of the stomach removed by the stomach pump, of the ejected individual, or other matters requiring analysis, to the Chemical Examiner to Government. Though Magistrates, Superintendents and Assistant Superintendents of Police, are required to grant an order for analysis, should the Medical Officer consider such an examination necessary, they can if they consider it advisable, order viscera, &c., to be sent to the Chemical Examiner, when in the opinion of the Medical Officer such a proceeding may be quite unnecessary.

9. When on receipt of the necessary order, a Medical Officer forwards articles to the Chemical Examiner for examination, he should address at the same time a letter to the Chemical Examiner advising him of their despatch. This letter should contain

- a. An impression of the seal used in closing the bottles and a description thereof.
- b. A list of the articles forwarded and a statement as to how the articles have been forwarded.
- c. The name of the officer from whom the order has been received to forward the articles, and the number and date of such order.
- d. A detailed account of the post-mortem appearances observed.
- e. If he has seen the case during life, an account of the symptoms observed and a statement of the treatment, if any, adopted.

10. All bottles and packets should be carefully sealed by the Medical Officer, and closed in such a manner that they cannot be opened without destroying the seal. The seal used should be the same throughout, and a private seal, or an official seal, which is always in safe keeping. Each bottle or packet should be labelled and each label should bear the number and date of the letter of advice to the Chemical Examiner relative to the case, as well as a short description of the contents, and should be signed by the Medical Officer.

11. Rules for the transmission of Substances for Analysis.—

Suspected substances may be forwarded by post, carriage bearing, by passenger train, or steamer or in charge of a Constable. The latter method is recommended in all cases in which wealthy or influential parties are implicated. Officers forwarding viscera, &c., by Post, by Rail, or Steamer, or by Constable to the Chemical Examiner, will be held personally responsible that the following instructions are carefully followed.

Transmission by Post.—When viscera, &c., are forwarded through the post the following rules are to be observed:—

- (1) The suspected viscera or other portion of the body or other substance liable to decomposition requiring to be sent for examination should be enclosed in a glass bottle or well glazed earthenware jar, provided with a well fitting stopper or sound cork.
- (2) If liable to decomposition, it should be immersed in methylated spirits of wine, which should be used in the proportion of one-third of the bulk of the material and care should be taken that no vessel containing liquid matters is quite filled.

N. B.—The use of spirits of wine in packing viscera should be invariable, whether the season is hot or cold, and care should be taken that common bazaar spirit is not used.

- (3) The stopper or cork should be carefully tied down with bladder, and large corks should be coated over externally with wax, glue or tar. To ascertain that it has been securely closed, the bottle or jar should be placed for five minutes with its mouth down.
- (4) The glass bottle or jar should then be placed in a strong wooden or extra strong tin box, which should be large enough to allow of a layer of raw cotton at least one inch thick, being put between the bottle or jar and the box.
- (5) The box itself should be encased in common garah cloth, which should be sealed in accordance with the usual rules of the Post Office as to parcels.
- (6) When articles are forwarded by post to the Chemical Examiner to Government, each package should be fracked externally with the name and address of the officer forwarding the articles, and a declaration of contents to the officials of the Postal Department is unnecessary, and should not be made.

- (7) At all stations where there is a District Civil Surgeon, the parcels should, when practicable, be sent to the Post Office by that officer, and not by a Subordinate officer, but where there is no Civil Surgeon, substances may be packed and forwarded direct to the Chemical Examiner, by the Subordinate officer in charge of the Hospital or Dispensary.

Transmission by Rail or Steamer.—When viscera, &c. are forwarded by Rail or Steamer, it is unnecessary to encase the box in cloth, but with this exception the rules for forwarding articles through the post must be observed in forwarding articles by passenger train or steamer.

Transmission by Constable.—When viscera, &c., are forwarded in charge of a Constable, it will not be necessary to pack the bottles, &c., in a strong box, in order to protect them from rough handling during transit. But it is desirable that glass bottles containing viscera, &c., should be wrapped in cloth or paper, so as not to be offensive to other passengers.

In every other respect the same rules should be observed as in the transmission of viscera, &c., by Rail.

12. **Suspected Blood Stains.**—Medical officers are in many instances expected to deal with these cases themselves.—Vide Section I. Paras 6 and 8.

13. **Suspected Seminal Stains.**—Vide Section I. Para 6. As the clothes requiring examination in these cases are usually exceedingly dirty, it is advisable when practicable to cut out any suspicious stains and forward them only for examination instead of the whole garment. In cutting out stains about half an inch of the surrounding cloth should be removed also. For information regarding packing and despatch of letter of advice, see instructions under head of Blood Stains. Vide Section I. Para 8.

14. Cattle Cases:—

- (1) Some precautions should be taken to ensure that viscera, &c., are not sent for examination in cases where death obviously occurred from causes other than poison. A careful search should be made for any indications of the presence of a Sui, when this mode of poisoning is suspected, and if anything resembling a Sui be found it should be forwarded for examination. A Chemical examination of the viscera is useless in cases of Sui Poisoning, as in such cases poison cannot be detected in the viscera.
- (2) The entire alimentary canal should be opened and its contents inspected for suspicious-looking substances. If any suspicious-looking substance be detected in the alimentary canal, it should be packed in a separate vessel, and spirit should not be added unless necessary for its preservation.
- (3) About two pounds of the contents of the stomach, with about a pound of the contents of the intestines, should be placed in a clean glass or well glazed earthen vessel or vessels, and strong methylated spirit added in the proportion of not less than one-fourth of the apparent bulk of the material, when the contents are nearly dry, but if much liquid be present spirit should be added in the proportion of one-third of the bulk of the material. Also about a pound of the liver, and a similar weight of the stomach should be placed in a separate clean glass or well glazed earthen vessel, and methylated spirit should be added in the proportion of one-third of the bulk of the material. A sample of the spirit used in packing should also be sent. Four ounces are sufficient.
- (4) Dried cattle dung may be sent without addition of spirit.
- (5) Suspected cattle poisons rarely require the addition of spirit for their preservation, and spirit should not be used unless necessary.
- (6) The instructions given as to the packing and transmission to the Chemical Examiner of substances requiring chemical examination, in cases of suspected Human poisoning are applicable to these cases and should be carefully attended to, and the same precautions must be adopted as to sealing and labelling the different vessels.—Vide Paras 9, 10 and 11.

(7) When under instructions received from a Magistrate or Superintendent or Assistant Superintendent of Police a Medical Officer forwards articles to the Chemical Examiner for examination, he should at the same time address and forward separately a letter to the Chemical Examiner advising their despatch. This letter should contain:—

- (a) An impression of the seal used in closing the vessels, and a description thereof.
- (b) A list of the articles forwarded and information as to how the articles have been forwarded.
- (c) The name of the Officer from whom the order has been received to forward the articles, and the number and date of such order.
- (d) Information as to the number and kind of animals affected, and number of deaths.
- (e) Any information obtainable as to post mortem appearances, nature and duration of symptoms and which may be likely to indicate the probable nature of the poison.

15. **Analysis of Water.**—Before forwarding a sample of water to the Chemical Examiner for analysis, it is necessary to write to the Chemical Examiner and ascertain when it will be convenient to receive the sample or samples which may require to be examined. It being desirable that samples should be examined shortly after they are received at the Laboratory.

- (2) The duty of collecting the samples should always be undertaken by a responsible person. The employment of peons or servants for this purpose is strictly prohibited. The bottles used should be thoroughly cleansed, and then well washed out twice with water from the same source it is intended to fill them from, just before finally filling them.
- (3) Glass stoppered bottles are best, but if those are not procurable, new corks are to be used with the ordinary quart wine bottle, of light colored glass. In filling the bottles a little space should be left between the cork and the water.
- (4) Not less than ^{each sample} one gallon of water is to be forwarded.
- (5) Each bottle to be labelled, with the name of the well, and date of collection.
- (6) On forwarding water for analysis, the Medical Officer should, at the same time ~~time~~, forward separately a letter to the Chemical Examiner. This letter should contain:—
 - (a) An impression and description of the seal used in closing the bottles.
 - (b) Information as to the number of samples sent, and a statement as to how the ~~articles~~ have been forwarded.
 - (c) An explanation as to the reason for which the examination is required, and information as to by whom it is desired.
 - (d) A statement as to the source from which each sample was collected, and by whom and when each sample was collected.

Madras
11 January 1883

J. K. Rogers, M.B.F.R.C.S.
Chemical Examiner
to the Government
of Fort Saint George

101
Public Department.
N1

PROCEEDINGS of the MADRAS GOVERNMENT.

Read the following

letter from the Surgeon Genl. with
the Govt. of Madras of 15 May 83
No 215.

Order. 30 May 1883 No 1062

The Governor in Council
approves of the proposed rules
for the guidance of Magis-
terial, Police and Medical
officers in the matter of chemical
legal examinations, with
the modification suggested
by the Surgeon Genl. as to
the substitution of urine they later
for methylated spirit -
and directs that the Rules
be printed and circulated
to the officers concerned.

No. 1062

By the Surgeon Genl. is also approved and will be struck off at the Govt. Press on which an indent will be made for such number of copies as may be required for distribution among the Officers of the Medical Deptt. The Chemical Examiner will send direct to the Suptt. a form containing the information in regard to cases of suspected poisoning required in Sec I. Para 4, to be printed & circulated to Police & Magisterial Officers.

1/11/18
Legal Department

two } — a
1562
RENT No.

Surgeon Genl with Govt.
Chemical Examiner
All Dr. Magisterial
Insp. Genl. of Police
Suptt. Govt. Press with form
Chief Presd. Magisterial
Rev. Deptt.

9/21/18
Note for Despatches
make following note at foot of all signed copies
"Surgical Department"

Letter
Collection 250

1 rep
Please keep file of the
to be sent to the
18

23-4-92
25-2-92
18-10-93
10-4-94
11/12/00
7-5-00

PRESS.

<i>Public</i> DEPARTMENT.
G.O. DATED <i>30 May/88</i>
No. <i>1062</i>

First copy sent to Press. *5/5*

Returned for signature.

Despatched in print.

[Despatch Abstract.]

crimes - legal examinations

Approving the proposed
as for the guidance
Magisterial, Police
and Medical officers in
a matter is —, with
tain modification
suggested by the Surgeon
l with fort.