2 Reports

PROCEEDINGS OF THE PLAGUE COMMISSIONER.

(1899)

Mis
~~PRINTED.~~

No. 1117

DATED 22-4-99

Indexed K.S.
25-4-99

[Despatch Abstract.]

Recording letter from the Collector of North Arcot stating that the special Plague Officer Vellore has been requested to adopt certain suggestions of the Sany. Commr re ~~the~~ Plague arrangements in Vellore.

BACK PAPERS.

No.	Date.	No.	Date.

FURTHER PAPERS.

No.	Date.	No.	Date.

Plague

Plague Commissioner's Office

~~Local & Munl.~~ (1899) ~~Department.~~

For orders.

21/2

CURRENT No. 2303

~~Ref~~ on c No 2303 of 99

21/2

Order.

To the Collr. N Arcot

Sir,

I h. th. to enquire if you have taken action on any of the suggestions made by the S.C. in his memorandum on plague arrangements in Vellore forwarded to you with his 535/S d. 17.2.99.

2/3

From The Sanitary Commissioner for Madras.

No. 550/S.

Dated 20 February 1899.

Received P. C. 21 FEB. 1899

Registered 21-2-99

Enclosures 2

Spare copies

SUBJECT.

Forwarding a copy of his memorandum on the plague arrangements in the town of Vellore to the Collector of North Arcot for his consideration in ref to plague

Return to him after despatch

2/3

Return to him after despatch

Retd 2/3

5 22 M / 13-3-97

292 / 21 31-1-99

104 / 7 12-1-99

220 A 18-10-98

174 / 19-1-99

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Memorandum on the plague arrangements in the town of Vellore.

"Home segregation" without isolation of the sick, is practised. The system is in direct defiance of established sanitary principles for combating plague. In any case, the mode can only be temporarily possible of application at the commencement of an outbreak – at the very time when segregation and isolation proper are ~~to be~~ found to be of the utmost value in stopping spread. It must ultimately become an impossibility seeing that each household in – which this method is employed, must imply the exclusive use of at least two policemen. Nothing but a series of chances can prevent Vellore from being so attacked with plague as to make the – majority of the town uninhabitable. At the time of my writing, there is every indication of a fresh focus – the street inhabited by bakers – having been formed in the centre of the town. So far as ascertained, the houses attacked are within so limited an area that it would be of the utmost sanitary advantage to at once direct its evacuation. The principles which I here lay down are perfectly well known to all local authorities, and I am aware of the reasons which have been considered by those responsible as sufficing to prevent them being applied. Nevertheless, it is my duty to place on record my opinion as to the probable result of the pursuit of a hopelessly faulty policy, that was condemned in the most decided terms by the medical profession, as the result of actual experience during the plague of London over two hundred years ago. Illustrations of its influence (notwithstanding modern care as to disinfection and the prophylactic influence of inoculation) are found in the disaster which happened to Bangalore, and through which the Mysore city is at present passing. There is no reason apparent why the 45000 inhabitants of Vellore should not be overwhelmed with plague - reaping death for themselves and sowing it for others in the Presidency - if the present policy of resistance to rational measures by the inhabitants be persisted in. In this connection, it must not be forgotten, even if there occur a temporary lull in spread that may make those who hold opposite views trust that the ineffectual methods pursued have sufficed, that the probability of a period of recrudescence under favorable circumstances (after the breaking of the S.W. monsoon) of a moist soil, has yet to be faced.

2. Hospital camp. No caste hospital has not yet been erected by the people, although there was at one time evident desire to do so, as Rs 300 had been collected, and is still in the hands of the Committee unspent. It is desirable with the object of favoring removal from houses, this movement be fostered again, and that particulars as per Plague Commissioner's Proceedings No 220 A dated 18th October 1898 be made fully known.

3. No Gosha Hospital or ward exists although this town has a very large proportion of Muhammedans. One should be put up without delay‡. It may be said it will not be used; but, at least, the excuse that no arrangement for the Gosha system exists should not be allowed.

‡ Honorary Captain AZIZ Khan Rai Bahadur has promised me his influence to secure the co-operation of his co-religionists. The Hindus of Cosapat also promise evacuation -
(Sd) W. G. K.

4. No special quarters for relations of those brought to the existing hospital have been erected. It is true they may dwell in the segregation camp; but the Regulations provide that quarters should be at the disposal of such relatives as desire to nurse the sick. The want of such quarters and of separate bathing and latrine accommodation, is calculated to delay persons from using the camp hospital.

5. A further point is likely also to have an adverse influence, namely, the arrangement that those who stop in their houses are allowed batta varying from 2 annas to 4 annas, whereas those who go to camp are given rations in lieu. It is advisable to modify this ruling, so that the circumstances of those who are disposed to go to camp should be decidedly more convenient than those who will not listen to reason.

Such an arrangement has not been sanctd by or reported to, this office.

6. Disinfection of persons and clothing in camp. No arrangements have been made for the privacy of persons undergoing disinfection. No special

cement surfaces, or dhobies ovens, have been made.

7. Hospital sheds. The two Hospital sheds are well built, and have neatly finished cement floors. They are well open in the front. It is possible this may require modification on the breaking of the monsoon.

8. Water supply. Water is brought from the Seringa Gunta by cart, and is deposited in chatties at a point about midway between the plague hospital and segregation camp. It is not provided in any other than this one spot. Hence persons from both the camps must resort here, or be dependent upon the waterman when they have found him. During my visit, the ward attendant was temporarily officiating as a waterman, and showed me how he distributed water by thrusting his hand with a lotah into the chatties! This arrangement should be superseded, by the placing of iron cube tanks with self closing cocks, or, if this cannot be afforded, casks fitted with self closing cocks, in both segregation and hospital camp.

9. Arrangements in the town. There is no house-to-house inspection, but a system of "observing" persons in houses where attacks have occurred, is attempted. It need not be said, therefore, that the chances of getting accurate information as to attacks is remote. Plague operations are under the charge of Captain French, who is working with energy under dispiriting conditions. All houses are duly disinfected under Lieut Sherard with a party of the 28th M.I. This work is carried out with care. In one detail, however, I think a change is requisite. Whilst still wet, the earth to be sterilized is treated by the "kiln method". The result on my examining certain heaps both in Arcot and Vellore was to show that as bamboos, bits of coir, and rags, escape incineration, the chance of certain parts of the earth escaping entirely from any benefit by this laborious method, is very probable. The necessity for moving the earth whilst wet has doubtless been considered with reference to spread of the dust that might occur, were it treated dry; but, if the soaking with perchloride has done any good, it will have acted on the upper and really dangerous layer, leaving the lower still dangerous — if this be really dangerous — still to be treated, whether the upper layer be handled wet or not. Hence, if the lower layer is to be done thoroughly, the "Kiln method" should not be used, until the floor has dried after the application of perchloride solution.

10. Sullage water. In Vellore cesspools and cesspits are frequent. It does not therefore follow that all sullage water appears at the front of the house. Still, this is so to an extent to dictate the desirability of all surface drains in infected areas being daily flushed with perchloride of mercury solution*. As this procedure will prove expensive, it should be restricted to drains actually serving infected houses. The connection direct of houses in two

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* The District Medical officer informs me that this was observed formerly. It is probable during his absence on plague duty in other parts this omission has crept in.

(Sd) W.G.K.

localities with old underground sewers should at once be severed in each case, not only on account of the deleterious influence of sewer gas, but also because, in absence of trapped connections,

infected

[illegible]

infected rats may leave the sewers and enter houses.

11. Rubbish. No separate collection of rubbish is enforced for infected areas. Not only should houses known to be infected have the rubbish separately dealt with by burning on the spot, but that of all houses in the infected area should be collected by having separate receptacles for each house, which should be emptied direct into carts covered with tarpaulin, instead of being first placed in public dust-bins. The rubbish carts serving the infected area should be required to deposit their load in a specially appointed place, where incineration should be insisted upon. At the present moment, under the baneful system of Conservancy by contract used by the Council, rubbish from an infected area may be deposited at any spot in the town and surrounding villages convenient for the contractor, or the purchaser. This ought to be an admirable way to spread plague.

12. Night soil disposal. Public latrines within the infected area should have their contents thoroughly disinfected, and, also be specially disposed of instead

of being scattered hither and thither. Orders have been issued to destroy night-soil of patients suffering from plague by fire; but, on making enquiries on the subject, absolutely contradictory statements have been received. In any case, there are but 8 extra toties employed against 17 provided by G. O. No. 522 M, dated 13th March 1897, as a first and necessary instalment. Where, however, private toties are employed no system of control is retained, and no destruction is contemplated. This is erroneous.

Pages 67–70 Plague manual

13. One of the most serious defects of the home segregation system, is that no control of sanitation beyond the dubious visits of the toti mentioned, is maintained. Till death or recovery, it is no one's business to ascertain what comes of the clothing of the patient, or of the other segregated inhabitants. Theoretically, nothing passes out of the house because there is day and night on duty a policeman, but there are side walls and *other ways* of getting over the difficulty of the policeman being inconveniently at the front door. It is quite possible to secure special dhobies, as well as toties to effect the necessary duties.

14. I

14. I hold that whatever concessions it may have been thought necessary to yield, nothing should have prevented *full control of internal sanitary arrangements* during "home segregation" being maintained by the Plague Authority. Not a suggestion as to treatment or diet should have been made, but the insisting on sanitary details, I think, ~~this~~ should have been a *sine qua non* of permission to infected persons to endanger the lives of others by residence in the town.

15. *Inoculation*. Major Bannerman has done his best to make this popular, and has succeeded in personally performing the majority of 1,066[x] cases. Of these, 334 have been within the infected area of Saidapet. This good work unfortunately cannot make much impression upon a town of 45,000 people, but it may suffice, should the lesson of protection acquired be enforced by experience upon the people, to make the applicants more eager hereafter. Under the orders of the Plague Commissioner, Miss Trevellyan-Hawden, a Nursing Sister, has done a few cases amongst Mahomedan ladies, and hopes to secure a still further addition when the Ramzan is finished.

Of

[x] From Jany 14th to 8th Febry 1899.

Of 15 persons resident in infected houses who were inoculated, two were attacked and died within the incubation period of plague, and one was attacked 20 days after inoculation. This case was also fatal.

16. Observation. For incoming passengers, pass-ports are issued at Katpadi. Passengers by road are watched on the road to Arcot and at the bridge crossing the Palar. I think this system should be made complete by also making stations on the Arni and Bangalore Roads: on the former road, numbers pass to and from villages. At each Observation point, movable barriers should be placed across the road; otherwise, in a place with so many jutkas, persons wishing to escape detection can easily arrange to go at a rate that would prevent arrest. These stations having been established, it would aid observation if Additional Regulation No. 34 were enforced, in the case of the infected areas of the town. This Regulation is of special value, irrespective of the pass-port system, although not infallible, as by it reasons for leaving the town may come to light: disinfection of property and clothing previous to departure, may

then

then at least be secured.

17. Disposal of the dead. Mahomedans, as reported in the Inspection Notes of this office from year to year at various times bury in most unsuitable localities within the town. The Council has taken no action on this matter up to date. Any change contemplated should have been effected long ago. As matters stand, the suitability of sites should be considered as each case occurs, taking care that no exaggerated views as to the danger of plague infection from decomposing corpses takes place; as the chances are greatly in favour of a rapid disappearance of the plague microbe. But, under any circumstances, the burial within 3 yards of the Busapet tank, which is used for drinking purposes, should be put a stop to. A Mahomedan corpse was buried under these conditions recently.

I visited the graveyards at Palar and at the Vellore Hill. Burial in the latter place was stopped after my pointing out in my Inspection Notes of 1894 that the surface water supplying Suriya Gunta flowed directly over the graveyard. I found that this place is again in use, and that the chances are that the corpses from Saidapet have been deposited here. I counted 20 graves and 3 cremation remains that must have been made within the last 21 days. Dirty bits of cloth were strewn over the ground. At the Palar burial ground, 23 new graves or marks of cremation that would appear to have been made within the last 10 days, were found. The burning of corpses occurs in the bed of the river, and within 20 yards of the site used by the dhobies of the town. The burial of corpses takes place on the extreme edge of the bank, so that, in reality, it may be said that burial occurs within the flow of the substream. At none of the burial places are peons stationed to ascertain the number of deaths. This is an essential step. New sites for burial more distant from the bank should be selected.

18. *Vital Statistics*. The following statistics show, irrespective of the heavy death-rate from cholera, that death under "all other causes" has increased to an extent justifying the belief that concealment of plague cases exists.—

	Plague	Cholera	Small-pox	Fevers	Dysentery + Diarrhoea	Injuries	All other Causes	Total	Rate per mille of population							
									Plague	Cholera	Small Pox	Fevers	Dysentery + Diarrhoea	Injuries	All other Causes	Total
November 1897	..	..	..	26	13	..	36	75	..	..	..	6.9	3.5	..	9.6	20.0
December Do.	..	..	2	17	6	1	43	69	..	..	0.5	4.5	1.6	0.3	11.5	18.4
January 1898	..	..	5	20	8	1	36	70	..	..	1.3	5.4	2.1	0.3	9.6	18.7
February Do.	..	..	7	25	13	..	39	84	..	..	1.8	6.7	3.5	..	10.4	22.4
November 1898	1	1	2	4	15	2	62	87	0.3	0.3	0.5	1.1	4.0	0.5	16.5	23.2
December 1898	..	34	3	3	26	3	78	147	..	9.1	0.8	0.8	6.9	0.8	20.8	39.2
January 1899	18	113	..	4	16	3	81	235	4.8	30.2	..	1.1	43	0.8	21.6	62.8
February up to 9th	7	26	..	..	4	..	16	53	5.8	21.6	..	..	3.3	..	13.3	44.0

19. Cholera. In the midst of ~~[illegible]~~ special precautions against plague, the co-existence of cholera should not be forgotten. Every care as to correct disposal of choleraic matter, protection and disinfection of water sources must be pursued.

20. General sanitary state of the town. It is no use attempting to contend by special means against an epidemic, unless the ordinary requirements of sanitation are attended to.

When an

an epidemic has appeared, it is too late to attend to ~~plague measures~~ matters affecting water-supply and sewerage, otherwise than by makeshift measures. But, in regard to the A. B. C. of Sanitation – the preservation of the purity of the soil by suitable night-soil and rubbish conservancy – action should be taken in an effectual manner. An idea may be formed at once of the nature of night-soil conservancy in the town, when it is remembered that 21 toties are detailed to collect fœces in the streets, against 27 detailed for duty in the public latrines. A walk in the infected streets and area, before the scavengering staff have gone their daily rounds, will disclose the fact that, at every few steps, on the sides of the public roads fœcal matter is deposited, showing that many of the householders answer the calls of nature by squatting in front of their own houses. Fœcal matter is collected by toties of all classes in open baskets. It is conveyed to unknown localities in open bamboo country carts. This unsuitable method is a standing disgrace to a Municipality that has been in existence since 1867. As already stated rubbish is collected at the will of the contractor, and distributed where he elects.

The only market in the place is used largely as a latrine. Indeed, two godowns within it were shown me forming part of the butchers stalls which are literally used for nothing else. This filthy state of affairs has existed in spite of the protests of a Councillor. Rupees 300 "budgeted" for the market remains unspent. From this amount, at least, suitable doors might be provided, which would prevent this misuse in the godowns. Although a peon is allowed for the market in the budget, no peon attends it. Mismanagement of this description during a period of loss of life by plague and cholera, dictates the necessity for a better class of supervising staff. Of 5 sanitary Inspectors, only one has passed the qualifying examination as Sanitary Inspector. The newly appointed Secretary has not had conferred upon him any powers that would enable him to deal with the discipline of the sanitary staff In my opinion, a complete reorganization of methods is essential, if the town is to make any pretence to being in an ordinary state of cleanliness. At present, the Plague officer is fully employed in seeing to plague details. It seems to me therefore

therefore

therefore that the better administration of general sanitary matters in the town might be best looked after by the appointment of a special medical officer, acting under the District Medical Officer. The Chairman should be required to delegate to him, and to the Secretary all reasonable powers. By means of a diary showing recommendations made, the District Medical and Sanitary Officer could readily refer such points as required special action on finding they were not attended to promptly by the Municipality, for action by the Collector, under Mufassal Municipalities Regulation No. 22. If there be any difficulty as to delegating powers, the special medical Officer should at least have absolutely at his disposal the whole sanitary and menial staff in the affected areas.

21. I summarize the foregoing, and add certain minor details. I suggest (1) increased vigilance as to perfection of "home segregation"; if the local authorities are fully persuaded nothing better than this very poor form of sanitary action can be enforced. (a) by securing that the police guards at night are inspected at intervals of about two hours, so as to

to see that none are asleep (b) by attending to sanitary requirements as to disinfection of clothing, removal of rubbish and excreta throughout the illness on systematic lines, and that, for this purpose, there be no longer any delay in giving the full staff laid down in G.O. No. 522 M. dated, 13th March, 1897, of toties and peons, and that mounted orderlies be supplied to Divisional Inspectors and the Plague Officer; (2) that in the Plague camp the defects as to water supply, bathing spaces, disinfecting spaces and accommodation for relatives and staff be remedied; (3) that a gosha ward be provided; (4). that the Vigilance Committee be resuscitated, and be required to work on a system by which each member shall be responsible for a defined area, and that daily reports as to visits made be sent by each member; (5) that encouragement be given to the erection of caste hospitals and camps, by making widely known the usual concessions allowed by Government as to payment of half costs, freedom from restriction as to Medical treatment, facilities for nursing by relatives, the use of their own foods &c; (6) that hutting

material

material for 250 persons be kept in stock to meet the possible first demand for health camps; (7). that the sites where health camps may be erected be made publicly known, and that persons living in such camps will undergo no restrictions as to personal freedom shall also be made known; (8) that the application of the "kiln method" be modified; (9) that drains in infected areas be systematically flushed with disinfectants; (10) that guards be placed at all graveyards to report burials and burnings; (11) that wells and other drinking water sources in infected houses and areas be systematically disinfected; (12) that the sanitary supervising and sanitary menial staff be placed under the direct orders of a special medical officer, preferably of the whole town, but certainly in the infected areas; (13) that rubbish and night soil of the affected areas be specially collected and disposed of, irrespective of action taken as to known infected houses referred to above; (14) that in giving passports for those entering the town a separate slip be added, showing the place and hour at which they should attend for examination; (15) that infected areas in the town be defined, and made known by tom tom from time to time, and that additional Regulation 34 be put in force; (16) that 15 iron night-soil carts of 13 cubic feet capacity be at once purchased; (17) that suitable night soil trenching and rubbish deposit sites, provided with incinerators (the "Silchar" is commended) for burning of suspected material, be at once secured; (18) that the Arnee and Bangalore roads be watched, in addition to those now under supervision, and that passports be issued at these posts; (19) that the Municipality be required to no longer pursue the "contract system" of conservancy on expiry of the present contract; (20) that depôts for inoculation be opened.

W G King
Lieut Col. Ims.
Sanitary Commissioner
for Madras

23B

[300—10-2-99.]

Plague

No. 539/S

Office of Sanitary Commissioner,
Madras, 17. 2. 1899.

From
Lieut.-Colonel W. G. King, M.B., C.M., D.P.H., I.M.S.,
Sanitary Commissioner for Madras,

To
The Collector of North Arcot.

Enclosures.

Sir,

With reference to the plague operations in the town of Vellore, I have the honour to invite your attention to the points stated in the accompanying memo.

I have etc.
(Sd) W. G. King.
Lieut Col. Ims.
Sanitary Commissioner

(True Copy)

Balasundram
Manager and Assistant
for Sanitary Commr. Madras

Collector of North Arcot

With reference to the [illegible] Sanitary Commissioner's [illegible] I have the honour to invite your attention to the remark stated in the accompanying Memorandum [illegible] Collector of the District.

(Sd.) W. G. King
Lieut Col. [illegible]
Sanitary Commissioner

(True Copy)

Memorandum

[illegible]

2/2303

C No 2303

[500—5-11-98.]

PLAGUE.

No. 550/S

Office of Sanitary Commissioner,
Madras, 20 February 1899.

From

Lieut.-Colonel W. G. King, M.B., C.M., D.P.H.,
Sanitary Commissioner for Madras,

To

The Plague Commissioner
Madras

Enclosure.

Sir,

I have the honor to forward herewith a memorandum containing suggestions for your consideration in reference to Plague. A copy has been forwarded to the Collector of the District.

I have the honor to be
Sir
Your most obedt Servt
W G King
Lieut Col. I.M.S.
Sanitary Commissioner
for Madras

PLAGUE COMMISSIONER'S OFFICE.

Refer C No 4051/99 Df 15/4

(189)

SANITARY COMMISSIONER
Register No 1949. S
16 APR. 99
WITH THE GOVERNMENT OF MADRAS.

Forwarded to the Sanitary Commissioner for perusal and return.

Donkey 15/4
Plague Commr.

CURRENT No. 4051

Progs. Lins 9/4/99
Letter
Ref.

No 1277/S. C No 4334.

P. C.
20 APR. 1899

P. C.
9 - APR. 1899

Noted and returned with thanks.

W G King
Lt. Col. I. M. S
San. Commr Madras

19/4/99

~~Chos 2303, 4051 & 4334 of 99~~

To

The Plague Commr.

C Nos 2303, 4051, 4334 of 99
Ro No. 1117 of 22nd/24th - 99
Recorded

Lins 20/4/99

5th/A

From The Collector of North Arcot

Dis No. 882/M of 99

Dated 6 - 4 - 99

Received

P. C.
9 - APR. 1899

Registered Recd 10/4/99

Enclosures

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SUBJECT.

Informing that the special plague officer, Vellore, has been requested to adopt the suggestions made by the Sanitary Commissioner in his memorandum on plague arrangements in Vellore.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

CN 4051

Plague

NORTH ARCOT, COLLECTOR'S OFFICE,

Chittoor dated 6-4-1899

Dis No. 882/98 OF 1899.

FROM

J. K. Batten Esqr.

as COLLECTOR AND DISTRICT MAGISTRATE,

North Arcot,

TO

THE Plague Commissioner

Madras.

Encl nil

SIR,

With reference to your letter, Refer. c. no 2303, dated 2nd March 1899, I have the honor to inform you that I have requested the special Plague officer, Vellore+ Town, to adopt the Sanitary Commissioner's suggestions on the following points and to report to me if he thinks any of the suggestions unnecessary or impracticable.—

+ Sany Commrs Inspn notes of Vellore — missing + is being searched for

(a) Providing special quarters for the relatives of those brought to the plague hospital and for Mohammedan gosha females with separate bathing and latrine accommodation.

(b) granting rations instead of batta to those segregated in their homes;

(c) Making necessary arrangements for guarding the privacy of persons undergoing disinfection and for providing cement surfaces and dhobie's ovens;

(d) Arranging for the storage of water in casks fitted with self closing cocks separately for the ~~segregation~~ isolation and segregation camps;

(e) Modifying the process of disinfection by "kiln method" in the manner suggested by the Sanitary Commissioner;

(f) Seeing that the internal sanitary arrangements in the houses of persons who are home segregated are as good as possible;

(g) Arranging for a night patrol to see that the guards placed over infected houses do their duties properly; and

(h) Systematically flushing the drains in infected areas with disinfectants.

2. I have forwarded extracts of paras 10, 11, 12, 17 and 19 to the Chairman, Municipal Council, Vellore, for information and necessary action. I have also requested him to appoint guards to watch burning and burial grounds and if possible to carry out the Sanitary Commissioner's suggestions regarding the purchase of iron night soil carts etc. I have also recommended for adoption by the council the Sanitary Commissioner's suggestions regarding the discontinuance of "the contract system" of conservancy.

3. The question of the powers delegated, or to be delegated to the municipal secretary and to the Plague executive staff is being enquired into

by the Subcollector, who will submit a full report.

I have the honor to be,
Sir,
Your most obedient servant

For ag Collector.

Mr Col

7 APR. 1899

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ent to Press.

or signature.

d in print.

NUMBER OF COPIES REQUIRED.
- Order complete.
- Letter only,
- Order complete with Letter.

No. DATED
189

to G. No.

A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.