

Special report on the prevention of cholera / by the Medical Officer of Health for Glasgow, to the Board of Police.

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SPECIAL REPORT
ON THE
PREVENTION OF CHOLERA,

BY THE

MEDICAL OFFICER OF HEALTH FOR GLASGOW,

TO THE

BOARD OF POLICE.

AUGUST, 1865.

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GLASGOW:

PRINTED BY ROBERT ANDERSON, 85 QUEEN STREET.

1865.

REPORT
THE
PREVENTION OF CHOLERA
BY
DOCTOR
J. H. COLEMAN
OF
THE
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MEDICAL
DEPARTMENT
OF
THE
UNITED STATES
OF AMERICA
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1867

REPORT.

GLASGOW, 4TH AUGUST, 1865.

MY LORD PROVOST,

I AM favoured, by your Lordship's instructions, with a Circular Letter addressed to you by the Secretary of the Privy Council, referring to the recent appearance of Cholera in Egypt, and the occurrence of some cases in Turkey and in Italy; the object of the communication being, in view of a possible visitation of the epidemic, but without exciting unnecessary alarm, "that the Authorities of your Locality may be enabled to take such steps as they may think proper for the preservation of the health of the inhabitants of their neighbourhood." And, with the further view of aiding the Authorities in this duty, two documents are enclosed in the letter above-mentioned—one, a "General Memorandum on the Proceedings which are advisable in Places attacked or threatened by Epidemic Disease;" the other, a copy of a Circular addressed, in 1859, by authority of the Lords of the Privy Council to the Authorities of certain outports of the United Kingdom, supposed to be subject to the importation of Cholera, and to be devoid of the necessary provisions for meeting an emergency.

I have carefully perused all these papers, and will now proceed to state to your Lordship, as briefly as possible, the conclusions at which I have arrived as to the precautionary measures specially applicable to the case of Glasgow, in the view of a possible Cholera epidemic. Your Lordship will clearly understand that I make these observations in no *alarmist* spirit, but simply as a matter of official duty, arising out of the circumstances above described.

It may be desirable to remark in commencing, that since the great European invasions of Asiatic Cholera in 1832 and 1848, much really valuable information has been gained as to this disease; and while the causes of its *epidemic* prevalence at certain seasons are

still shrouded in mystery to a great extent, the *localizing* causes, or the reasons of the prevalence of Cholera in certain localities rather than in others, have been investigated with a considerable measure of success. All that can be done in the way of prevention consists in the clear exposition, and thorough practical application of a few obvious rules, founded on a knowledge of these local causes of disease.

Now, among the facts most clearly established with respect to Cholera during the epidemic of 1854, the following is of pre-eminent importance, as involving practical consequences in the prevention of the disease:—That Cholera, however originated among large bodies of men or among individuals, is propagated and maintained in many cases by impurities derived from the bodies of the sick, and making their way accidentally into the drinking water, the food, or the air used by the healthy. The much-vexed questions of contagion, infection, and epidemic influence, are resolved by this more general, and at the same time more practical statement, into a form in which they may be safely dismissed from consideration at present.

The influence of impure water—and, more specifically, of water contaminated by the admixture of sewage, or of the ooings from cess-pools and middens, and therefore open to the influence of the Cholera poison as above defined, has been shewn by a multitude of concurring instances, so familiar to the minds of men who have given attention to the subject, that a reproduction of them here would only serve the purpose of lengthening this communication, and, perhaps, of creating undue uneasiness. Suffice it to say in general terms, that in all parts of this country, in 1854, evidence was afforded of the direct association of Cholera with the domestic use of impure, *i.e.*, of sewage-tainted water; while, on the other hand, equally striking instances were afforded of exemption from Cholera, even in the midst of other unfavourable conditions, when the water used by the population was of unquestionable purity. It may even be said, that of all the known localizing causes of Cholera—the one most clearly shown forth, and of most general operation during the former epidemics, seems to have been the one just alluded to. And it is no small satisfaction to be able to feel some confidence, that in any renewed visit of this disastrous pestilence, Glasgow has taken securities against its ravages in the very direction to which experience points as most effective, by the in-

troductiion of the admirable water-supply from Loch Katrine. The only question that remains under this head of the inquiry is, whether the benefits of a pure water supply are at present fully realized by the poorer population within the bounds of Police?

To this question, I regret to say, my experience compels me to give an unsatisfactory reply. With abundance of pure water at command, the distribution of this important element of healthy life is by no means so complete as is desirable. In many parts of the City, water is not taken into the houses, and there is not even a sufficient supply of fountains in the courts and closes for the accommodation of the population. Complaints are not unfrequently made to me on this subject; but even where no complaints are made, it is obvious that the distance of the water-supply from many of the houses is a source of great inconvenience, and of possible, or even probable danger. Water is carried with difficulty, and is therefore used in too limited quantity, or is retained too long in the foul and fetid atmosphere of close, unwholesome apartments, it is thus perpetually exposed to the risk of contamination; and as nothing is so easily tainted as pure water, it may well happen, that what was originally a very wholesome and excellent water for domestic use, may become, by long keeping, fraught with the impure exhalations which carry disease and death. I am, therefore, clearly of opinion that the new powers which the Water Commissioners have acquired under the Act of Parliament passed during last session, should be put in operation without a moment's delay, so that the blessing of a pure and abundant water supply, now so amply provided for the City at large, may be carried as nearly as possible to the door of every house, however poor, within the bounds of the authority of the Commissioners. Without this precaution, there will still be room to doubt, whether the advantage and the security to be derived from the use of Loch Katrine water have been fully gained for those who require the most active care of the authorities during an epidemic of Cholera.

Although not strictly a danger likely to prevail extensively within the limits of my official duty, I cannot avoid uttering a warning to all persons living in the neighbourhood of rivers and streams into which impurities enter, or of wells which may be possibly rendered impure by the soakage of cess-pools or of surface drainage, that the commonest prudence would appear to require a strict examination into the sources of supply of water for

domestic use, with the view of securing the best accessible kinds, and rigidly excluding for use all questionable sources. And in the event not of Cholera alone, but of any variety of diarrhœal disease being discovered in a locality, the examination of the water supply ought to follow as a matter of course, even when there may have been no previous cause for suspicion. The experience of the well-known Broad Street Epidemic in London, shewed that a water in high repute for its qualities to the taste, may nevertheless be so loaded with organic impurities, as to become a source of wide-spread destruction of human life.

If it could be affirmed with confidence that Cholera is communicated only by the domestic use of impure water, there would be a reasonable probability that Glasgow might almost entirely escape in any future epidemic visitation. I should not be disposed to argue unfavourably even from the noisome state of the river at this season, seeing that little direct influence, in the production of Cholera and diarrhœal disease, can be traced to the mere exhalations of river water, however impure, when not accidentally or deliberately used for domestic purposes. The purification of our noble river, therefore, though extremely desirable on general grounds, does not appear to me to have any very special relation to the present subject; since I believe that the very foulness of the Clyde within the bounds of Glasgow, together with the presence of a much purer water supply for domestic purposes, may probably secure us against any considerable danger.

In regard to another source of impurity, I am by no means so much at ease. The state of the middens and ash-pits in many parts of Glasgow, notwithstanding many improvements, and almost constantly renewed efforts at amelioration, cannot be contemplated at a season like the present, without a degree of alarm. The attention of the Sanitary Committee has frequently been called to this subject, and measures have been under consideration, and in part carried out in many of the worst localities, for the daily cleansing of all such collections as are likely to be injurious or offensive. But the difficulties are very serious. The enormously large size of many of these receptacles has been a very frequent cause of undue accumulations, their position also rendering them with difficulty accessible in many instances, so that a regular system of cleansing has hitherto been too often the exception, and reports from the Police Constables of "over-full ash-pits" have

figured largely among the returns submitted to the Board of Police. In consequence of these and other considerations, I had some time ago expressed to the Sanitary Committee my conviction founded on personal inspections, that it can no longer be left to the discretion of subordinate officers to judge when the cleansing of the receptacles of night-soil should be performed, but that some positive rule should be adopted for the guidance of the Inspector of Cleansing. At present there is the additional stimulus derived from the apprehension of Cholera to assist us in overcoming these difficulties, and I have no hesitation in recommending, with all the force of conviction, that the Inspector of Cleansing should be instructed and empowered to cause the entire removal of every vestige of night-soil within the bounds of the Police Act, at least once within each twenty-four hours. And further, that the Master of Works should have authority to add to his staff, to such an extent as may be necessary, in order to enable him to deal with defective constructions of ash-pits and middens as rapidly as possible in all parts of the city. Under a system of daily cleansing a large proportion of the present receptacles would be found to be unnecessarily large; while on the other hand, their large size and imperfect construction form one of the most serious obstacles to perfect removal of the refuse-matter. It is very desirable, also, to place a barrier in the way of a return to a negligent course, by reducing the size of the receptacles, and thus rendering undue accumulation difficult, if not impossible.

In certain cases the use of disinfectants, as recommended in the "General Memorandum," should be employed both by the officers of the Inspector of Cleansing, and by the residents of infected localities. The latter precaution might be made contingent on the advice of the Medical Officers of Health, or of the Parochial Medical Officers.

The other instructions in the "General Memorandum," such as the white-washing of uncleanly premises, the prevention of overcrowding, ventilation, domestic cleanliness, etc., etc., are already in operation wherever the advice of the Medical Officers, or the legal powers of the Police Act, can be applied with advantage. The special supervision of lodging-houses, and the provision of hospital accommodation, and medical advice and comforts for the sick might come to be required, were the disease actually declared epidemic, but need not be further adverted to in this communication.

Your Lordship will observe, in conclusion, that I have for the present only insisted upon reforms which, though specially desirable, are nevertheless of permanent value and usefulness. Measures of emergency, properly so-called, I shall defer until the emergency declares itself. The present recommendations are, I venture to think, both expedient and sound in principle, and whether, in the Providence of God, we are to be visited by Cholera or not, there need be no hesitation in adopting most of the improvements suggested, in so far as they may be found in accordance with the powers given under the Police Act.

I am,

MY LORD PROVOST,

Your Lordship's very obedient Servant,

W. T. GAIRDNER.