Correspondence

THE QUESTIONABLE VALUE OF PRESENT-DAY MORTALITY STATISTICS

To the Editor:—One cannot help being impressed by the casual way in which most hospitals regard the accuracy of their assigned cause of death, as expressed in the regulation death certificate. Particularly can this be observed in any large city hospital in which chronicity of all grades is treated. In some hospitals, in order to comply with the regulations of the "Manual of the International List of the Causes of Death," when an elderly man or woman dies as the result of senile changes, general arteriosclerosis or cardiorenal disease, it is more than likely that the death certificate will contain as the cause of death, "chronic myocarditis." Statistics, then, compiled from these data, contain such cases as cardiac deaths, thus falsely raising the general mortality rate for this type of disease. Then, too, the physician sees, in the course of a year, many sudden deaths, carelessly assigned to "acute cardiac dilatation," when it is not unlikely that the death may have been due to nerve palsy, coronary blocking, massive cerebral hemorrhage, or any one of many other conditions which might have been causative of a patient's death.

I have also seen a lack of appreciation, on the part of interns, visiting physicians and others, of the importance of the information set forth in the death certificate, when it becomes known that a needy family will be deprived of life insurance if an accurate cause of death, such as syphilis, alcoholism or tuberculosis, is assigned.

In the courses on ethics in our medical schools, it would appear that not sufficient stress is laid upon the absolute necessity of the physician's furnishing, faithfully and truthfully, any information which, in his opinion, was the determining cause of death. Professional veracity must not countenance juggling of death certificates, even though needy and blameless persons suffer by telling the truth.

In some localities, the assignment of the cause of death is, under certain conditions, in the hands of lay civil officers, and as a result little confidence can be placed in any mortality statistics from this source.

How often does the physician, practicing in a hospital, see at postmortem that he has made gross errors in his diagnoses, even though the patients in question have been carefully and conscientiously studied? Such errors may be eliminated from the death certificate by the systematic performance of necropsies. Until all hospitals are awake to the fact that, from the standpoints both of teaching and of the advancement of medical learning, a strenuous attempt should be made to raise (and, in some instances, to bring into existence) their postmortem percentages, it can hardly be expected that clinical and pathologic diagnoses will coincide with any degree of accuracy. It seems evident that the administrators and visiting staffs of most hospitals do not have the courage of their convictions, in regard to the advisability of postmortem examinations on a large percentage of their deaths, or that they are not convinced of their duty to the cause of medical education.

When it is stated that the Philadelphia General Hospital, which handles from eighteen to twenty thousand patients annually, has increased its postmortem percentage, in three years, from 10 per cent. to 51.35 per cent., it should be clear that any hospital, making an intelligent attempt, could succeed in improving this most important branch of medical teaching, and at the same time increase the accuracy of its mortality statistics.

The utter disregard, on the part of most hospitals, of a serious attempt to confirm accurately the cause of death by

postmortem examination is appalling. One cannot help being impressed by the utter worthlessness of present-day civilian mortality statistics.

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APPARATUS LEAK AS A CAUSE OF FALSE LOW BASAL METABOLISM READINGS

To the Editor:—Basal metabolism determinations having become of the widest clinical use, it is well for all concerned in the performance of the test to be informed about every pitfall which may be encountered.

As a general proposition, whenever a leak occurs in the apparatus used for the test, it will give an apparent increase in oxygen consumption, and consequently a false positive reading. This is, apparently, because a certain degree of positive pressure in the machine is developed by each exhalation, a certain amount of air being forced out at each respiration; whereas, inhalation does not create a negative pressure sufficient to cause the same amount of intake through the leak. The variation from the true consumption of oxygen is dependent on the amount of air escaping through the leak.

Usually the presence of a leak in the apparatus is easily determined, and no test should be performed without a preliminary test of the machine. A good routine to follow is to test the machine by closing the circuit and placing a weight on the spirometer bell at the time when the patient is put on the bed for the preliminary test. If the reading of the scale has changed by the time the patient is ready for the test, there is a leak, this change in the reading showing a loss of air from the chamber.

Recently, an experience with a leak which caused an intake of air and a consequent false low reading has shown that leaks are not always productive of false positive readings.

In this case, a metabolism test had been made by a technician, with a resulting low reading which apparently did not correspond with the clinical aspect of the case. A test of the machine, a portable Benedict apparatus, demonstrated a leak present, the chamber losing air when the motor was idle but showing an increase in volume, amounting to 80 c.c. per minute, with the motor running. This increase in volume within the oxygen chamber demonstrated that the machine was taking in air under the influence of the circulating motor, this continuing during the metabolism test, and explaining the seemingly low oxygen consumption of the patient.

Failure to locate the leak by the usual methods, including immersion of all accessible parts in water, led to a procedure which I have not seen recommended as a method of locating leaks, but which is convenient and easily applied when there is difficulty and may be used to test parts of some machines which are accessible in no other way. This consisted simply in filling the apparatus with illuminating gas, in the same manner as it is filled with oxygen, and, while pressure was applied on the spirometer bell, a lighted match was carried over the machine until a flame revealed the leak of gas. Of course, with this procedure the soda lime should be removed beforehand, and afterward a thorough ventilation of the apparatus is necessary.

In this instance, the leak was located in a brass pipe leading from the oxygen chamber into the blower, the influence of suction from the blower being sufficient to draw air in from the exterior.

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Untreated Cancer of Prostate.—The average duration of cancer of the prostate, if untreated, is approximately three years.—Bumpus, H. C., Jr.