

THE METHODS OF THE HENRY PHIPPS INSTITUTE FOR THE STUDY, TREATMENT, AND PREVENTION OF TUBERCULOSIS IN PHILADELPHIA.*

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The invitation to read a paper before the Laennec Society [173] was accompanied by the request that the paper be on the detailed workings of the Henry Phipps Institute. This is therefore my excuse for the paper.

The Phipps Institute was opened on February 1, 1903, for the study, treatment, and prevention of tuberculosis and the word "study" was designedly put first.

The institute comprises a dispensary and a hospital. The wards of the hospital accommodate only fifty-two cases, eighteen women and thirty-four men. The work was inaugurated with three physicians, the number of whom was gradually increased to thirty-two. These physicians are divided as follows:

A medical director, four laryngologists, a dermatologist, a pathologist, a bacteriologist, a neurologist, an ophthalmologist, a genito-urinary surgeon, and twenty-one clinical physicians.

In both the dispensary and hospital only tuberculous cases are treated, and it is insisted upon that they be destitute. If they are capable of paying a physician even fifty cents a visit they are referred to their home physician.

There are in the present temporary quarters no facilities for treating surgical cases, and hence no attempt is made to

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[173] treat them. The only operations ever done in the hospital or dispensary have been the opening of an ischio-rectal abscess, the tapping of a pleural effusion, the introduction of a tube for empyema or an urgent tracheotomy.

It happened that the man chosen by Mr. Phipps to be director of the institute was already director of a large sanatorium for the treatment of early cases. In addition to this sanatorium there were three hospitals for early cases in and about the city of Philadelphia, and it appeared both to Mr. Phipps and Dr. Flick that the most good could be accomplished by a hospital for advanced cases. The hospital was designed, therefore, for these cases only.

The good accomplished by a hospital for advanced cases is more in the way of prevention and study than of treatment. The typical suitable patient for the Phipps Institute hospital is a member of a very poor family in an advanced stage of consumption who is not only a burden to the rest of the family on account of the care required, but is also probably infecting other members of the family. A concrete example would be the father of a family in which there were small children. On account of the illness of the head of the house, the wife is obliged to work for the support of the family, and when she [174] is at home is obliged to care for the children and the patient. It is almost impossible for an ignorant housewife to thus take proper care of a patient, especially without infecting herself, or without allowing the children to become infected. It is also practically impossible in our day for a woman to get sufficiently remunerative work to support such a household. The removal, therefore, of this case to a hospital removes one person from the support of the worker, removes a patient requiring considerable care from the hands of an ignorant individual already over-worked, and prevents the possibility of further contagion in the household. The patient is kept in the Phipps Institute until he either recovers sufficiently to do a certain amount of work or until he dies.

In order to further the study, before the patient is admitted to the institute his nearest legal relative is obliged to sign a certificate permitting an autopsy in case the patient dies in the hospital.

In the hospital there are no resident physicians. The fifty- [174]
two cases are divided up among ten visiting physicians who
visit the hospital at least every second day. The hospital has
a history record sheet made up by the staff from the compari-
son of a number of such blanks gathered in from all parts
of the world. Each year this has been partially changed,
corresponding to the experience of the members of the staff.
This history sheet, therefore, is as complete as the staff deems
necessary to show the physical condition and sociological
status of the patient, although it is still changed somewhat
every year. It is filled out entirely by the visiting physician,
in other words, the history is taken in its entirety by men of
experience and not by recent graduates. In addition to this
sheet, there is a diagram for the outline of physical signs,
which is also filled in by the visiting physician. The staff of
physicians meets every Monday evening; and once a month,
all the histories in the house and in the dispensary are brought
before a history censor committee, and any thing lacking on
the sheet or diagram is called to the attention of the staff. By
this means every history and diagram is kept absolutely com-
plete in all details. In the histories and diagrams it is neces-
sary to indicate not only the abnormal, but also the normal.

In addition to these histories we have what are called
monthly summaries. These monthly summaries repeat a
certain number of the questions of the history in regard
to things that may have changed since the admission of
the patient, for instance, the cough, expectoration, hæmor-
rhage, curved nails, curved fingers, enlarged glands, etc.,
and repeat also the diagram. In other words, while the
patient is in the hospital a complete examination in regard
to symptoms and physical signs is made once a month. This
is taken care of in the same fashion by the censor committee,
as the original history.

There is also a complete nose, throat, and ear record sheet
for any patient who manifests symptoms pointing to disease
of these organs, likewise, a complete nervous sheet which is
filled out for every house case and many dispensary cases.

Though the cases in the hospital are divided up among the
different physicians and each physician has his own set of

[174] cases, there is a special understanding which not only allows but encourages every physician on both the house and dispensary staff to examine any or all the other cases. This examination is voluntary and the physician may or may not make a diagram of it. It is particularly requested, however, that a physician making an examination in this fashion, make a diagram and attach his name to it, so that there may be as many examinations as possible, if the case should come to autopsy. It is very common, therefore, at autopsy to find several complete examinations by the physician who treated the case, and several others by other physicians on the staff. This not only makes the autopsy interesting, but causes it to be done in an exhaustive fashion. Like our history sheets, we have a very complete autopsy sheet, every question on which must be answered.

At the end of the year all the statistics relative to cases are compiled and printed in an annual report.

In the dispensary, as in the hospital, only absolutely destitute cases are taken. In regard to the financial condition, the word of the patient is taken for the primary examination and treatment. Subsequent to this, however, an inspectress visits the patient's house and if his financial condition is found better than stated, he is refused further treatment.

The history and examination sheets used in the dispensary are the same as in the hospital, and they are filled out with the same exactness. The summary examinations, however, are required in the dispensary not once a month, but once in three months. We have fifteen men in the dispensary, each one spending four hours a week, seeing altogether an average of seven hundred new cases a year, and four hundred old cases. These dispensary physicians come two days a week, spend two hours each time, and see the different cases once in two weeks. It takes about an hour to see a new case the first time, hence they see only one or at most two new cases on any single day. Cases are seen only once in two weeks in order to give sufficient time for changes of condition to be noticed and in order to avoid too much medical interference, which can do harm. I have always thought that the greatest trick I learned in the treatment of tuberculosis was the infrequent seeing of

cases. It is not possible to treat every little symptom manifested by a tuberculous patient, and if the patient is seen frequently it is almost impossible to avoid overmedication, which only does harm. [174]

As soon as the patient comes into the dispensary, whether he is a new or old case, he is handed a spit cup by a nurse who is always present in charge of the dispensary, and he uses the spit cup while awaiting his turn, and takes it with him into the examining room. These spit cups are the regulation paste board spit cups in a brass container. As each patient is leaving, after his first visit, he is given free of charge a set of preventive rules to hang up in the house, one brass container, fourteen spit cups, and a number of paper handkerchiefs, and paper bags. He is shown exactly how to use these different things by the nurse in charge, and instructed in the necessity for their use by the physician.

If the patient is destitute he is frequently ordered milk by the physician. We have two milk stations in Philadelphia: [175] one at the institute itself, and one in Kensington, in the northern section of the city, about three miles away from the institute. In addition milk is delivered in the western and southern sections of the city through local milk dealers.

Milk is given to the patient under various circumstances and in varying amounts. The most common intention in giving milk is for the nourishment of the patient in order to make him well, and in this case the milk is usually given in quantities of about three quarts per day; it is given, however, also for the purpose of being able to control an advanced case even when it is evident nothing can be done in the way of cure or improvement. All patients coming to the dispensary are given preventive supplies in the shape of spit cups, and paper napkins; only about one-quarter of them are given milk.

When a patient coming to the dispensary is an early case he is usually advised to go to the White Haven Sanatorium for six months, though if his resistance is very good, or if he refuses to go to the sanatorium on account of not wishing to leave his family without support, he is treated in the dispensary and encouraged to come once in two weeks. The nurse

[175] visits his apartments or house and reports on it; if he is living in too confined an apartment, the nurse and physician both advise a change. Sometimes this change is accomplished, again it is found practically impossible on account of lack of funds to meet more rent. In this case as much as possible is done at the present home. The wife, or other members of the family are instructed in the communicability of the disease and the steps required in order to prevent infection. They are advised to keep the children outside as much as possible during the day. It is insisted that the rooms be wide open at night, be disinfected immediately by the Board of Health, and be kept clean, practically disinfected thereafter. The wife is instructed to boil all the eating utensils or to wash the patient's separately. She is instructed to use a wet or moist broom in sweeping, not a dry broom; also a wet cloth in dusting, not a dry cloth. It is seen that the patient has a bed to himself, even though a makeshift in the shape of a couch has to be put up.

The nurse visits the patient once in two weeks and reports on the following: The amount of milk received by the patient from the institute; whether or not it is used by the patient; whether or not he is working; whether or not he takes exercise out of doors; sleeps with the windows open; sits in the kitchen; uses a spit cup; uses his paper napkins; burns spit cups and napkins; spits on sidewalk when on street; uses handkerchiefs or rags; whether or not the premises are clean; whether or not there is a back yard and what its condition; how many people there are in the house; how many windows in the house; whether or not there are other inmates in the house sick; whether or not the patient uses stimulants; if the rules of the institute have been hung up in the house; and whether or not she (the nurse) has instructed the patient in the observance of the rules. There is a special printed blank for these questions which the nurse writes out and attaches to the history of the patient so that the physician may see at the next visit of the patient the inspectress's point of view in regard to how the patient is co-operating with him. All the answers to the questions which go to show the patient is doing his duty are written in black ink.

The things which the patient does contrary to what he ought [175] to do are written in red ink in order to call the physician's attention to them without being obliged to read the whole report.

If the patient is not following the physician's directions, his attention is called to the fact, and if he is found disobeying the emphasized directions, his milk is stopped, if he gets milk, or his treatment, if he merely gets treatment.

If the patient has advanced tuberculosis he is encouraged to come into the Phipps Institute or go to the Philadelphia General Hospital. Sometimes he refuses to come into the Phipps Institute on account of the autopsy requirement and refuses to go to the Philadelphia Hospital on account of it being also the alms house. Such a case is investigated before there is any question of giving him milk and then only in case he cannot be controlled without the milk is he given a quart of milk daily, and then only in case he can be controlled by it.

Even in the dispensary we look more to prevention than to absolute cure, though we try also to accomplish the latter; in other words, even in the dispensary we are not satisfied to hold patients as life long milk pensioners. A patient is treated for a definite length of time, as for instance, six months or a year, being carefully instructed throughout this period. We consider then that if we have not cured him, we have at least instructed him so that he should not be a menace to others. If then he has been getting material aid, this aid is stopped. Of course the patient may continue and usually does continue coming to the dispensary for advice.

In some of the European dispensaries, especially the one at Lille, before the patient is examined, he is sent to a bath room and while he is being bathed his clothes are disinfected. This is an added help in the way of instruction and in addition aids in prevention since the patient's clothes are so likely to be infected.

In addition to milk, the French dispensaries supply eggs, meat, coal and sometimes lodging. It also takes care of all the patient's laundry in order to make sure that it is frequently washed and also in order to avoid the possibility of infecting the laundress.

[175] In addition to the hospital and dispensary the Phipps Institute has an extensive laboratory in which all those connected with the institute, work. The laboratory is fitted up for bacteriological and pathological study. Since it is simply a modern laboratory I omit details.

One of the frequent questions asked us is, how much opposition is manifested towards the autopsy requirements for admission to the hospital. It is surprising to know how little opposition is made to it. There are practically only three classes of people who raise any objection whatsoever; first, the Hebrews, since it is definitely against their belief; second, the Irish, who have a great sentimental regard for the dead
[176] bodies of their friends; third, the colored people, who fear that the permission to do the autopsy carries with it the sure death of the individual. The Germans and the English make no objection whatsoever, and the objections of the others are so easily overcome that the majority of our patients are Irish and a few are colored people and Jews.

The good accomplished by the Phipps Institute may be put under three heads: the good to the physicians, the good to the patients, and the good to the public at large, accruing from the study, treatment, and prevention of tuberculosis. In the study of tuberculosis the physician derives his benefit, first from the examination of the case, and particularly from the fact that the examination must be complete, thereby rendering him more thorough in his work; second, from the confirmation or non-confirmation of his examination findings at autopsy; and third, from the weekly staff meetings which average more than twenty men out of the staff of thirty-two, at which cases and theoretical questions are discussed and to which uncommon or difficult cases and pathological specimens are brought.

The benefit to the patients lies in the amount of improvement produced, the care taken of them while they are very ill, and the prevention of contagion in other members of the family.

Since the hospital is intended for advanced cases, and since according to our statistics only advanced cases are admitted, it is readily intelligible that our results would not appeal to

a layman on account of the number of patients who die. To [176] physicians, however, this is perfectly natural and from our standpoint what is remarkable is not the number who die because that was to be expected, but the number that not only improve but improve sufficiently to go back to light work for one or more years.

The following are the statistics of the results of treatment of cases in the Phipps Institute that remained in the hospital or came to the dispensary over a period of three months for the year ending February, 1907:

	HOUSE.	DISPENSARY.
Incipient arrested .....	..	6 (16.22%)
“ improved .....	..	27 (72.97%)
“ unimproved .....	..	4 (10.81%)
“ died .....	..	..
Moderately advanced arrested .....	..	..
“ “ improved	6 (50%)	53 (67.09%)
“ “ unimproved	2 (16.66%)	22 (27.84%)
“ “ died	4 (33.33%)	4 (5.06%)
Far advanced arrested .....	..	..
“ “ improved	18 (41.86%)	7 (35%)
“ “ unimproved	14 (32.55%)	9 (45%)
“ “ died	11 (25.58%)	4 (20%)
	55	136

The benefit to the public is in the general prevention of the disease; in the education of physicians to be capable of recognizing the disease in an early stage, and capable of treating it so as to insure cure if cure is possible; in the popular lectures which are given by the various members of the staff on request, either to popular societies, like labor and beneficial unions, or to medical societies; in the education of trained nurses in the care of tuberculosis, and in the running of tuberculosis dispensaries and sanatoria; and in the general diffusion of education by means of the annual report published in an edition of five thousand copies and distributed gratis.

A study of what is being accomplished in the way of the prevention of tuberculosis, published in the Third Annual Report, was entitled “A Statistical Study of the Influence of the Henry Phipps Institute upon the death-rate in Philadelphia.” This statistical study was made of all the wards in the

[176] city of Philadelphia, and it was found that all the wards in which tuberculosis dispensaries or hospitals were located showed a definite decrease in tuberculosis, which was above the legitimate decrease taking place almost everywhere. The largest decrease in the city of Philadelphia was found in the wards in which the Phipps Institute does the greatest amount of its work, despite the fact that these are the slum wards of the city. The only wards which showed a definite increase in tuberculosis during the past three years were the fashionable wards, in which the wealthy people live.

The fact that every ward in which a tuberculosis institution exists has had a reduction in the death-rate from tuberculosis is very interesting in view of the opposition which exists to the establishment of institutions for the treatment of tuberculosis on the score of danger to the neighborhood. There was the strongest opposition to the location of the Rush Hospital in the twenty-fourth ward. The twenty-fourth ward shows a reduction in the death rate from tuberculosis while its neighbor, the thirty-fourth ward, with exactly the same kind of a population, has had an increase. Another very interesting fact is that the reduction in the death-rate from tuberculosis during the three years is among the poor in the crowded parts of Philadelphia rather than among the well-to-do in the sparsely built up parts of the city. The greatest reduction has been in the slum district, the foreign district, the colored district, and the manufacturing districts. These are just the parts of Philadelphia in which tuberculosis was most rife formerly. The wards in which the wealthy and the well-to-do live either have had an increase in tuberculosis or very little decrease. A corollary springs from these facts that the superficial instruction given to the wealthy and well-to-do for the prevention of tuberculosis as advocated by many is insufficient for the prevention of tuberculosis.

One of the things at the Phipps Institute that we are proudest of and would not be without is our training school of nurses.

When the institute first opened we were forced to take any nurse that we could get, and the majority of these knew little or nothing about the care of the tuberculous. Moreover many

of them were afraid of tuberculosis and accepted positions [176] simply because they were out of a position at the time. The inauguration of our own training school was a great venture since we put into it only cured tuberculous cases. Practically all of these tuberculous cases came from the White Haven Sanatorium. We consider our training school a great success and it is a success for probably the following reasons: first, even when the girls enter they are already pretty well trained [177] in the care of the tuberculous on account of the knowledge received in the cure of their own case; second, having gotten over tuberculosis themselves, they are not at all afraid of it; third, they are not disgusted by the unpleasant features of tuberculosis, namely, the expectoration, etc.; fourth, on account of their own cure, they are extremely enthusiastic about the cure of others, and having seen quite advanced cases recover they are never ready to give up hope; fifth, they are a constant source of encouragement to the patients who have thus constantly before them an example of cured tuberculosis.

The training school has been opened three years. So far we have taken in thirty-five girls of whom eighteen have graduated and have lucrative positions outside. Of the thirty-five, five have broken down.

It is commonly thought that our nurses must have been very early cases of tuberculosis. This is not at all true. The majority of our nurses were moderately advanced cases of tuberculosis. A small number were early cases and a few far advanced. One of the nurses at present in our training school has a cavity at the top of each lung, has moist râles all over both lungs, and was for two years absolutely confined to bed. Another of our nurses came into the Phipps Institute in a far advanced stage and successfully graduated in our training school this fall. I have gone into this question of nurses rather extensively because the most important essential of a tuberculosis dispensary is a well trained nurse.

There are two ways of running a tuberculosis dispensary, namely, like the Phipps Institute dispensary or the German dispensaries. The Phipps Institute dispensary is devoted more to the study and the German dispensary more to the treatment of the cases. The Phipps Institute dispensary

[177] treats a small number of patients, the German dispensary a large number. In the Phipps Institute dispensary a physician does everything in connection with a case except visit it; he takes the complete history, makes the complete examination, weighs the financial condition, gives instructions, etc., etc. In the German dispensary the nurse takes the history, judges the financial circumstances, and gives the instructions, the physician deciding only on the diagnosis. I think there are good arguments for both classes of dispensaries. Where the amount of funds is limited I think the arguments favor the Phipps Institute method since the patient is not only treated but the physician is further educated. In the German dispensary there is practically no lack of funds on account of the backing by either the insurance companies or the government.