District Clinics for Out Patient Treatment of Tuberculous Problem Patients

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SINCE TUBERCULOUS PATIENTS RECEIVE 75 per cent or more of their treatment outside a hospital, new and serious obligations have developed for private medicine and health departments. An important role of tuberculosis control divisions of health departments today is to assist physicians in maintaining patients on medication for as long as necessary by cooperatively working with private physicians to have their patients, who have lapsed in therapy, return to private care; and to have public care patients return to public clinics. This is a necessary function of public health in order to protect the community, the patient, and to prevent the development and spread of drug-resistant organisms.

In San Francisco, indigent tuberculous patients are hospitalized for treatment at the General Hospital, which is operated by the institutional services of the health department, and out-patient care is provided by the preventive medical services which operates the chest clinic at the General Hospital. For several years, 25 per cent of clinic appointments have not been kept by the tuberculous patients. Of greatest concern are those individuals who repeatedly fail to keep appointments, and thus have definite lapses in therapy. Efforts made to reduce the number of missed visits have been ineffective, except among Latin-Americans. A study was done to discover the cause or causes of repeatedly missed visits and to find a possible solution. It was noted that whereas many patients occasionally missed one or two visits due to acute illness, for example an upper respiratory infection or gastrointestinal disturbance, the vast majority of repeated appointment failures occurred among patients from four compact neighborhoods. Further investigation revealed that patients from each district had characteristics which distinctly separated them from those of the other districts. Whereas patients in all four areas were comparable in being from lower socioeconomic groups, living in overcrowded substandard housing, and being poorly educated, they differed in ethnic, cultural, social and emotional background. The four neighborhoods are: the Potrero, Westside, Chinatown and Skid Row.

The Potrero district is a lower middle class residential area immediately surrounding the General Hospital. There are many multiple dwelling residences and a low cost housing project, in addition to old single unit homes. The population is predominantly white (approximately 90 per cent), with a large concentration of Latin-Americans. The latter are poorly educated, live as marginal lower economic family groups in overcrowded quarters, and have a high prevalence of tuberculosis. The new case rate for the area in 1962 was 123.5/100,000 population, in contrast to 64.6 for the city as a whole.

The tuberculous are treated at the General Hospital or at the chest clinic. These people are basically cooperative and friendly, but due to ignorance or lack of understanding, frequently miss clinic appointments. Culturally, the group has strong familial ties and loyalty, in addition to a sense of civic responsibility. It has been found necessary to educate consistently these patients and their families regarding tuberculosis and their responsibilities to friends and the community. It must be emphasized that this is a continuous process, which can be markedly facilitated by

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a Spanish-speaking nurse. However, patience and understanding on the part of the district public health nurse and the clinic staff have ultimately eliminated repeated missed visits in this group.

The tuberculosis problems of the Westside health district are concentrated in the Negro population of the Fillmore area. The majority of the Negroes in this neighborhood are from the lowest socioeconomic level and are responsible for 90 per cent of the repeatedly missed visits in an area which has a new case rate of 240.7/100,000 population. The majority have migrated to San Francisco from the southern states during the past ten years. The group as a whole is poorly educated and lives in the lowest economic conditions in overcrowded substandard residences, or low income housing projects. They have brought with them the ignorance, prejudices, and health problems which were products of their former environment, and frequently demonstrate a lack of community responsibility and interest. Not infrequently they are resistant and resentful toward community standards or regulations. The area has the highest rates for tuberculosis, venereal disease, delinquency, school drop-outs, illegitimacy, prematurity, infant morbidity and mortality, and aid-to-needy children recipients. In other words, it is an area of multi-problem families and groups.

Whereas a multiplicity of public health, medical, clinical, and educational services are readily available, these are not utilized, either due to ignorance or lack of motivation. It should be pointed out that the Negro population in other areas of the city make good use of these services. It appears that the Negro who is motivated to move into better living conditions, is better motivated to care for his health, his family, and the community, so that these problems are not characteristic of the Negro, but are similar to those found in the lower socioeconomic groups of all races. They are somewhat comparable to the white population of Skid Row, except that alcoholism is not a major problem.

The area has two outstanding needs: (1) a district clinic to maintain uninterrupted treatment of tuberculosis on an outpatient basis; and (2) some means of motivating these people to use the many services available to them, and thus reduce and eliminate many undesirable and unnecessary conditions which presently exist.

In order to relieve and/or resolve some of the problems, and perhaps to motivate the group better, a neighborhood council was formed of leading members of the district with representation from all social and economic levels: political, social, and religious organizations; professional and business people; and all ethnic groups—Negro, Japanese, and white. Membership was not restricted to the “core area,” but included the entire Westside health district. The Negro membership of the council is definitely of superior quality; many are prominent leaders in the city.

Originally it was assumed that the reason for repeated missed visits among the Chinese was due to misunderstanding based upon language difficulties, so Chinese-speaking public health nurses were assigned to the chest clinic. Whereas this provided better understanding and improved patient-physician relationships, it did not affect the number of missed appointments. This was difficult to understand since these people are usually cooperative, so the only logical conclusion was that something other than a language barrier was the cause.

Further investigation revealed that residents of Chinatown go to bed late and sleep late. Streets are sparsely populated until well after 9 each morning, and it is usually about 10 before the area is bustling with activity. Most shops remain open until 9 or 10 in the evening, and then the family sits down to eat together. Dinner is followed by a period of relaxation, often with television, until 1 or 2 in the morning. Therefore, the social life of the entire family is in the late evening, so that children and adults go to bed much later than is customary for the community as a whole. Such cultural patterns make it difficult for adults...
and families to attend clinic, across the city, between 8 and 11 in the morning. Whereas these practices are prevalent among the residents of Chinatown, the Chinese who move into occidental neighborhoods soon adapt to customs of the new environment. This is especially true of those who were born and educated locally.

It became apparent that an afternoon clinic in Chinatown would resolve the problem, since 98 per cent of the patients in the area were Chinese. Furthermore, such a clinic would facilitate contact examinations, treatment of tuberculin reactors, casefinding, and close follow-up of American-Chinese children recently arrived from Hong Kong.

The greatest number of missed clinic visits occurs among the residents of Skid Row, an eight square block area south of Market Street, which has a new case rate of 246.7/100,000 population. Ninety-eight per cent of the tuberculous from the area are white, single or unattached men, with no trade and poor work records, who are frequently alcoholic, with a history of numerous arrests for drunkenness. In addition, they have deep-rooted, severe emotional and anti-social behavioral problems which preceded the onset of tuberculosis by many years. Although they receive money for food, rent, and transportation from the Welfare Department, while under treatment, most of it is spent for alcohol. The majority drink or get drunk daily, when not in jail. They live in cheap hotels or “flop” houses, and eat their main meal free each noon day at St. Anthony’s Dining Room, which is operated by the Franciscan Fathers. In the evening, they may get free soup, bread and coffee at the Salvation Army Mission, provided they are not drunk.

The majority attend clinic fairly regularly when not in jail, but frequently are in various stages of drunkeness. The principal cause for visit failure has been repeated 15 or 30 day terms in the County Jail. Incarceration recurs so frequently that arrangements have been made with the Sheriff to treat these individuals while they are under his jurisdiction. Each new admission to the jail (Sheriff’s Department) receives a chest roentgenogram; all known active tuberculous individuals are referred to the Chest Clinic for admission to the General Hospital; all known tuberculous persons receiving out-patient care are treated at the jail; all prisoners with suspicious chest films are referred to the clinic for evaluation and treatment, if necessary. Whereas prisoners who are regular out-patients of the clinic receive treatment while in jail, this is not reflected in the Chest Clinic records, but is maintained as part of the jail-hospital file.

The second most frequent excuse for not attending clinic is lack of funds for transportation. The Welfare Department provides money for this purpose, but it is often spent for other “needs.” The Health Department has been giving these patients additional bus tickets, valued at 30 cents, following each clinic visit at the General Hospital. However, this has not produced an increase in regular attendance. It should be noted that many of these patients walk the seven miles round-trip from Skid Row to the General Hospital, and then sell the bus tickets.

Since all attempts to maintain uninterrupted therapy with this group have failed, it was decided that a district clinic might improve the situation and partially resolve the problem. In addition, these patients would receive ten months to one year of hospital treatment before discharge to outpatient care, depending upon the extent of their disease, the severity of their alcoholism, and other social problems. A clinic within the area would reduce both the time and distance for travel, and would permit those with “hangovers” to get to clinic with less difficulty. The actual site of the clinic is most important, and the resolution of this problem was not easy. However, it was finally decided that since the majority of Skid Row residents eat their main meal each day at St. Anthony’s Dining Room, this would be the best location.
It was recognized that the establishment of decentralized district chest clinics for Westside, Chinatown, and Skid Row would markedly reduce and partially resolve the visit-failure problem of the main chest clinic at the General Hospital. Furthermore, that these clinics would be operated two half days a week at each location by a district team, under the immediate supervision of a physician specialist in tuberculosis. Such a team would have in addition to the physician, two public health nurses, a medical social worker and a clerk-stenographer. This small cohesive unit would be able to give more time and individual attention to the patient and his problems, and thereby promote a closer professional relationship between the patient and the professional personnel. Furthermore, such a unit would become more aware of environmental conditions and intra-district mores and taboos which often have important influences upon the behavior of patients. In addition, the team would be able to advise district health officers, and work with neighborhood councils, voluntary organizations, and private physicians. District clinics would facilitate contact examinations, treatment of recent tuberculin converters, obtain more frequent bacteriologic studies, and assist educational efforts in the neighborhood and in the home.

Whereas it was recognized that district clinics in core areas of high prevalence and high incidence would result in better control, it was not possible to establish such a program until assistance was obtained through the United States Public Health Service, in the form of a Federal Project Grant for Tuberculosis Control. The clinics have been in operation for 14 months (April, 1962 to June, 1963), with the patient-load gradually increasing, so that as of June 30, 1963, a total of 525 patients were being treated in the three districts.

Much time was required to educate community groups and health department district personnel as to the potential effectiveness of such a program to patients and to the city as a whole. One of the greatest difficulties was to develop a team that would function as a unit, view patients as people with problems, and maintain a purely medical attitude, rather than adopt a punitive approach. It took nine months to find the right combination and to weld them into a smooth working unit. As a result, the improvement in patient and community relationships during the past six months have been dramatic.

**Results**

The attendance and bacteriology workloads for the initial 14 months of operation are shown in Table 1. It should be noted that the physician does not see every patient who attends the clinic, since some report for medication only. On the other hand, the public health nurse interviews each patient, distributes INH and PAS on order of the physician, and gives the streptomycin injections. The attendance and services of the last three months (April 1, 1963 through June 30, 1963) reflects the

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<th>Table 1—Attendance and Work-Load at Decentralized Clinics</th>
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<td>Total Number of Patient-Visits</td>
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<td>Total Number of Patient-Physician Consultations</td>
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<td>Total Number of Patients seen by Public Health Nurses</td>
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<td>Smear</td>
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<td>Total Number of Appointments</td>
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<td>Total Number of Patient-Visits</td>
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<td>Total Number of Missed Appointments</td>
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current operation, and allows for a better, but limited, evaluation (Table 2).

The total number of patients followed and treated at each clinic and the number of missed visits during the last three months are found in Table 3. In addition, there is listed the number of home visits made by the public health nurses. These visits are made when a patient misses two consecutive clinic visits, or is known to be ill at home, or the team wishes to evaluate the home environment. It should be pointed out that the total number of missed visits for Westside and Chinatown represents the actual number, whereas those for the St. Anthony's Clinic reflect only those missed visits during which the patient did not receive treatment. The latter group are frequently in jail or the General Hospital for an acute medical or surgical emergency. In either situation treatment will be continued, but it may be one or two weeks before the clinic is notified.

It will be noted (Table 2) that of 2300 appointments, there were 153 or 6.6 per cent missed visits. This stands out in sharp contrast to the 25 per cent experienced in former years at the chest clinic at the General Hospital.

The Chinatown Clinic has been accepted readily, and has the best attendance record. Eleven patients, of whom only one was Chinese, were responsible for the 24 missed visits. It is expected that the patient load will increase to approximately 500 during the next fiscal year and then level off. Whereas this district has had the most intensive casefinding program in the city for a number of years, much remains to be done. If tuberculosis is ever to be eradicated from a core area, or reduced to an irreducible minimum, Chinatown is the best possible neighborhood where this may be accomplished through an organized community effort of private physicians, neighborhood social and business groups, voluntary agencies, and the Health Department.

Whereas the patient-load at the Westside Clinic is relatively small in contrast to Chinatown, it has been increasing steadily. Patients from this district frequently failed to keep appointments at the clinic at the General Hospital, and have been difficult to manage. The maximum patient load will be approximately 300, but it may take more than a year to reach that peak. Educational and motivational efforts will take top priority in this district to improve case-finding and to maintain treatment. The fact that there were only 24 missed appointments during the last three months is encouraging, and hopefully indicates that the services of a district clinic may resolve many problems.

The total number of patients receiving treatment at St. Anthony's Clinic is small, but compares favorably with Westside as to patient-load. However, the number of missed appointments for this group was more than twice the number for the other two clinics combined, representing 69 per cent of the missed visits. This was expected since these are the "hard core" tuberculous-alcoholics from Skid Row. Regardless of the poor attendance in contrast to the other clinics, there have been far fewer breaks in therapy when the patients are considered individually. Whereas patients are missing several appointments over a three month period, there are fewer patients missing visits in a long series and thus lapsing in treatment. This is the most difficult group to control due to alcoholism, but perhaps through treating them in a special clinic a means of resolving the problem may be found. It should be pointed out that many of these alcoholics were cooperative and did not drink while in the hospital and at the Welfare Department's Rehabilitation
Center, but resumed their drinking pattern once they returned to the Skid Row environment. This type of alcoholic would do well if permanently placed in the protective environment of an institution or on a farm, since they are passive dependent individuals. The other type of alcoholic is characterized by aggressive anti-social, and uncooperative behavior whether in an institution or in the community, and, though small in numbers, is responsible for the majority of missed appointments.

**DISCUSSION**

The reservoirs of tuberculosis are concentrated in metropolitan districts, primarily in the large cities. These areas are found in the slums and older sections of the city. Although the location has not changed significantly during the past 50 years, the areas have become contracted into a more circumscribed and well-defined core. The population of the core are from the lower socioeconomic and lower educational levels, so that these neighborhoods are characterized by poverty, ignorance, overcrowding in substandard housing, and poor diet or malnutrition. These four characteristics may be called the harbingers or the “Four Horsemen” of high risk and high prevalence of tuberculosis.

Whereas these reservoirs have remained essentially unchanged during the past 50 to 100 years, the people inhabiting the areas have changed from the Irish, German, Central European, Spanish, Italian and Chinese who migrated to this country during the 19th century, to the Negro, Latin-American, Chinese and other non-whites of the new migration since 1946. The majority of immigrants are from the lower socioeconomic strata, arriving with limited finances and no job. They tend to cluster in groups of their own ethnic, social and educational background, thus forming a social group with its own cultural and behavioral patterns. Mores are established to protect the individual and the group from the threatening conditions of the new environment. As the individual adapts to the new environment, and improves his financial and occupational status, he becomes motivated to move into better neighborhoods. It has been found that individuals who are motivated to move into better living conditions have far less tuberculosis and other health problems than those who are content to remain in the lower socioeconomic areas. As the more successful and better motivated move from depressed and substandard neighborhoods new immigrants move in, so that a cycle is established whereby the population in an area changes gradually over a period of years.

The incidence of tuberculosis in core areas today is the same as it was for the community as a whole 35 to 40 years ago, so that these individuals are perpetuating the disease in the large cities and the country as a whole. Unless these groups can be motivated to participate in casefinding programs, and to continue treatment once they have been diagnosed and properly discharged from the hospital, tuberculosis will never be controlled adequately nor ultimately eradicated. The core areas will remain as isolated pockets of infection threatening to spread into the larger community at any time.

In San Francisco, the new migration since 1950 has been primarily Latin-Americans, Negroes from the southern states, Chinese from Hong Kong, and smaller numbers of Europeans. However, the Europeans do not tend to concentrate in the core areas. Since the majority of these people are to be found in relatively small circumscribed districts, it would seem advisable to develop a program which is specifically designed to the ethnic, social, educational and behavioral patterns of the various groups, in order to establish a more effective tuberculosis control program.

It was to meet these demands that the district team concept was developed. The effectiveness of such an approach has been demonstrated dramatically by the results in Chinatown. Whereas the program has not been as successful among the white population of Skid Row, or the Negro population of the Fillmore district, it has been more successful than treating these patients
from a central clinic located at the General Hospital. As the team becomes better acquainted with environmental and behavioral problems of these groups, it may be possible to make adjustments which will produce more favorable results. It should be pointed out that the last stronghold of tuberculosis is in the groups which have been described, and it will be necessary to look for new means to improve control if tuberculosis eradication is to be seriously considered a possibility.

**Summary**

1. The development of a special team to operate district clinics for the out-patient treatment of tuberculous problem patients has been described.

2. The clinics are specifically designed to meet ethnic, social, educational and behavioral patterns of the various groups who live in areas of high incidence and high prevalence of tuberculosis.

3. The effectiveness of the program has been demonstrated by the reduction of the number of missed clinic appointments from 25 per cent to 6.6 per cent during the first year of operation. The most significant reduction was among the Chinese where an afternoon clinic was more acceptable in the cultural patterns of Chinatown.

4. The clinics serving Skid Row and the lowest socioeconomic level of Negroes in the Fillmore area showed a marked improvement, but were not as successful as the clinic in Chinatown.

**Resumen**

1. La creación de un grupo especial para trabajar en las clínicas distritales con enfermos externos de tuberculosis es motivo de esta presentación.

2. Las clínicas se han planeado para atender a características étnicas, sociales, educacionales y de conducta de diversos grupos que viven en secciones con elevada frecuencia y prevalencia de la tuberculosis.

3. La efectividad del programa se ha demostrado por la reducción del número de citas no cumplidas bajando de 25 por ciento a 6.6 por ciento este incumplimiento en el primer año de trabajo. La significación mayor de la reducción del incumplimiento fue observada entre los chinos, en los que clínica de las noches fue más aceptable entre ellos.

4. Las clínicas en servicio en los barrios bajos de negros y en el área de Fillmore mostró una mejoría marcada, pero no obtuvieron un éxito tan marcado como el logrado en el barrio chino.

**Resumé**

1. L'auteur a décrit la formation d'une équipe spéciale opérant dans des cliniques de quartier, pour le traitement ambulatoire de malades ayant un problème de tuberculose.

2. Des cliniques sont spécifiquement conçues pour tenir compte des caractéristiques ethniques, sociales, d'éducation et de comportement des différents groupes qui vivent dans des quartiers à haute incidence et à haute prévalence de tuberculose.

3. L'efficacité du programme a été démontrée par la réduction du nombre des absences aux rendez-vous cliniques, de 25% à 6% pendant la première année de fonctionnement. La réduction la plus nette fut constatée chez les Chinois où un après-midi passé en clinique était plus acceptable dans les habitudes culturelles du quartier de Chinatown.

4. Les cliniques desservant le quartier de Skid Row, et le quartier de Fillmore, représentant le niveau socio-économique le plus bas de la population Noire, montrèrent une amélioration nette, mais que ne fut pas aussi satisante que celle de la clinique de Chinatown.

**Zusammenfassung**

1. Es wird die Einrichtung einer speziellen Arbeitsgruppe für die ambulante Behandlung von nichtkurwilligen Tuberkulosekranken in Kreiskrankenhäuser beschrieben.

2. Die Krankenhäuser sind besonders darauf ausgerichtet, den ethischen, sozialen, bildungsmässigen und lebensgewohnheitsmässigen Besonderheiten der verschiedenen Bevölkerungsgruppen zu entsprechen, die in Gebieten mit großer Tuberkuloseverbreitung leben.


4. Die Kliniken in Skid Row und jene in Fillmore mit der sozial tief stehenden Negerbevölkerung zeigten eine beachtliche Besserung, waren jedoch nicht so erfolgreich wie die Klinik in Chinatown.

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