

Improving the identification rate of pulmonary tuberculosis among inmates of common lodging houses

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SUMMARY An improvement in the identification of pulmonary tuberculosis among residents of common lodging houses has proved possible through the close co-operation of the doctor providing primary medical care, the mass miniature radiography services, and the wardens of the hostel where the proposed visit is to take place.

Renewed interest has recently been expressed about the single homeless and their place of residence—the common lodging house.^{1,2} Although the population appears to be on the increase, and is mainly confined to the inner city areas, it is by no means a new phenomenon.³⁻⁵ The common lodging house developed in the nineteenth century, and its character has changed little over the years. The residents are mainly of Celtic or Northern origins, usually men, single, homeless, suffering from personality disorders, and socially isolated,⁶⁻⁹ with a high incidence of chronic alcoholism.⁸⁻¹¹

The homeless form a particularly morbid subgroup^{2,9,12,13} Half of the habitués of common lodging houses in Edinburgh¹² had some form of chronic disease. Moreover, this population represents a reservoir of infection, particularly of tuberculosis, such that it could be considered a health risk to the whole community. Referrals to the chest clinics were eight times higher¹³ than the normal population, and 10% suffered from tuberculosis.

In Glasgow tuberculosis was found to be the fourth most common cause of death among the lodgers in the common lodging house, and the average length of survival after diagnosis was three years.¹⁴ One report¹⁵ suggests that the streets in the immediate vicinity of a large common lodging house have a high incidence of tuberculosis.

The Joint Tuberculosis Council reported in 1965¹⁶ on the x-ray results of 488 residents from lodging houses at 12 co-operating centres in England, suggesting that this population had a twentyfold increased incidence of tuberculosis.

Previous attempts at locating and diagnosing such reservoirs of tuberculosis were based on surveys of common lodging houses by the mass miniature radiography services. Their success will depend on

how many inhabitants accept radiography. Experience has shown a poor response. In Glasgow 860 residents of common lodging houses were invited for MMR.¹⁷ Only 193 (22%) were x-rayed, of whom 67 were referred to a chest clinic. Of these, 56 attended and 22 were found to have pulmonary tuberculosis.

In Edinburgh, from 1967 to 1971, the visiting MMR managed to x-ray only 18% of the residents in the common lodging houses.¹⁸

The study

NJS has been providing primary medical care to this population at their place of residence. This offered a unique opportunity to examine the hypothesis that greater attendance at such surveys, and consequent follow-up, could be achieved after a good rapport had been established. Indeed, he has shown¹⁹ that reliable data can be obtained only once a meaningful relationship has been established. Such a policy was achieved not by compulsion but by tenacious persuasion, even after many failures. We attempted to improve the attendance by the following methods:

(1) Regular MMR surveys with local advertisements in the hostels, both visual and verbal.

(2) Attendances by medical personnel (NJS) at the time of the MMR survey.

(3) Results of abnormal MMR films were passed on to the authors who undertook to locate patients quickly.

(4) Patients referred to chest clinics were carefully followed up if they did not attend.

(5) All patients' appointments were supervised directly by medical staff, even at the hostel.

We applied these techniques for the whole of 1979 and then compared the attendance for MMR screening and the notifications of tuberculosis for a

group of hostels receiving primary care (NJS), where the above measures were introduced, and a group of hostels not receiving any such extra measures. It is generally accepted by all those who have dealings with these patients that the hostels chosen for giving primary care were the worst of their sort, with few facilities for their inmates.

Results

The average nightly occupancy of the three hostels provided with primary medical care was 556 and that of the three hostels without surveillance was 540.

Table 1 shows the number of notifications of tuberculosis for the City of Manchester and the proportion of those who were hostel dwellers. The 24 cases notified in 1979 as compared with the 15 in 1978 occurred in a period when there was an overall drop in the notification.

Table 2 gives the attendances at MMR surveys at the hostels from 1975 to 1979. During the four years 1975-8, there were 1038 MMR attendances from the study hostels and 922 from the contrast hostels. In 1979 attendances were 682 and 185 respectively $\chi^2 = 166.7, p < 0.001$). Notification of tuberculosis from these hostels improved as 20 out of 24 hostel cases notified in 1979 were from the study group and in 1980 nine out of 10 were from these hostels.

The numbers x-rayed in the study hostels increased in 1977, which may be explained by a visit by the MMR to another hostel which has since been closed.

Discussion

The common lodging house appears to be an important reservoir of tuberculosis, and such an

uncontrolled focus has proved difficult to eradicate. The residents clearly cannot be relied on to undergo radiography regularly in the interest of their own health, and, generally, they have a low sense of responsibility. Inmates of lodging houses tend to resent anything of a compulsory nature, and we consider it better not to resort to compulsion but rather to persevere with sympathy and persistence. The law does, however, make provision for an unco-operative infected patient under sections 171-175 of the 1936 Public Health Act.

We recommend that MMR should visit the vagrants' place of residence every six months at a time when the largest number can be expected to be present. This can be achieved by close co-operation between the medical officer, the MMR services, and the wardens of the hostel where a proposed visit is to take place. Before this, advertisements, both verbally and visually, may increase the number who ultimately attend. Other ploys, such as the reward of free tickets in a raffle to be drawn at the end of the MMR service, have proved to be encouraging. In Edinburgh increased numbers were found to attend if attenders received a small financial reward.¹⁸

Detection of disease is of no value unless successful and acceptable treatment can be ensured. The MMR film should be read and their results sent, as soon as possible, to the medical officer, who may locate the patient before he moves on.

Certain workers²⁰ have used a multidisciplinary team to treat this group successfully. Indeed, health visitors who are traditionally concerned with the follow-up of patients with tuberculosis are often unable to locate this type of patient. Their position is not helped by the existing poor communications between statutory and voluntary bodies working in this field. Vagrants with tuberculosis tend to percolate through the various hostels in the same town and, because of this poor communication, their place of residence remains unknown. It is only in Manchester, where a unique state of affairs exists—a doctor travelling around the different hostels—that they can be more readily detected and encouraged to accept treatment. We hope to report the results of treatment within this group in due course.

Table 1 Notifications of tuberculosis, City of Manchester (1975-9)

Year	Total No of cases	Hostel cases	Hostel cases as percentage of total
1975	210	15	7.1
1976	171	16	9.4
1977	201	21	10.4
1978	161	15	9.3
1979	140	24	17.1

Table 2 Comparison of numbers x-rayed at those hostels providing primary medical care with those where there is no such provision

Year	Primary medical care provided				No primary care provided			
	A	B	C	Total	D	E	F	Total
1975	55	98	93	246	136	34	55	225
1976	24	117	73	214	111	73	50	234
1977	103	103	181	387	104	26	84	214
1978	52	79	60	191	85	18	146	249
1979	198	190	294	682	84	23	98	185

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