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

N J SHANKS AND K B CARROLL

From the Manchester Chest Clinic, Manchester M21 2RL, United Kingdom

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.5-11

The homeless form a particularly morbid subgroup5, 9-12 13 Half of the habituees 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 report14 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 196515 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
Improving the identification rate of pulmonary tuberculosis

group of hostels receiving primary care (NHS), 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
(χ² = 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 warden 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 workers19 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)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total No of cases</th>
<th>Hostel cases</th>
<th>Hostel cases as percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>210</td>
<td>15</td>
<td>7.1</td>
</tr>
<tr>
<td>1976</td>
<td>171</td>
<td>16</td>
<td>9.4</td>
</tr>
<tr>
<td>1977</td>
<td>201</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>1978</td>
<td>161</td>
<td>15</td>
<td>9.3</td>
</tr>
<tr>
<td>1979</td>
<td>140</td>
<td>24</td>
<td>17.1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary medical care provided</th>
<th>No primary care provided</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1975</td>
<td>55</td>
<td>98</td>
</tr>
<tr>
<td>1976</td>
<td>24</td>
<td>117</td>
</tr>
<tr>
<td>1977</td>
<td>103</td>
<td>103</td>
</tr>
<tr>
<td>1978</td>
<td>52</td>
<td>79</td>
</tr>
<tr>
<td>1979</td>
<td>198</td>
<td>190</td>
</tr>
</tbody>
</table>
References

2 Shanks NJ. Care of homeless people (part 1). Update 1981; 1197-1202.
9 Shanks NJ. Demographic features of inmates of common lodging-houses. Manchester; University of Manchester, 1982. (MSc thesis).
18 Ross JD, Reid KDG, Jamieson A. Pulmonary tuberculosis in the common hostel population. Update 1977; 167-74.
Improving the identification rate of pulmonary tuberculosis among inmates of common lodging houses

N J Shanks and K B Carroll

*J Epidemiol Community Health* 1982 36: 130-132
doi: 10.1136/jech.36.2.130

Updated information and services can be found at:
http://jech.bmj.com/content/36/2/130

These include:

**Email alerting service**
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/