Special Article

NEED FOR INFECTIOUS DISEASES
BEDS IN A LONDON AREA

BY

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The isolation unit of the Western Hospital, London, has to provide beds for two distinct types of infectious or potentially infectious patient. The first type of patient is seriously ill or needs investigation and treatment which can be undertaken only in hospital; the second type, although not seriously ill, is admitted as a public health measure to prevent the spread of infection, because satisfactory isolation cannot be carried out where the patient is living. For this reason uncomplicated cases of the more common infectious diseases often require admission, a factor to be taken into account in assessing the need for beds.

It was known that the area in London served by the unit included a high proportion of accommodation intended for temporary residence; at the time of their admission many patients were living at a temporary address where isolation would obviously be impracticable. No statistics were available, however, to show in what proportions such cases were admitted or to give any indication of the kind of place in which the patients were living. The routine returns do not cover this aspect, nor does the Hospital In-patient Enquiry,¹ which requires only "the local authority administrative area in which the patient usually resides for the greater part of the year."

It was therefore decided to make a retrospective study of the admissions to the unit during 1961 and 1962. The primary purpose was an analysis of the type of accommodation in which the patients were living when isolation became necessary. It was hoped that this, together with other facts elicited, might make a useful and interesting contribution in assessing the need for infectious-diseases beds in the area served by the unit. Social problems at home as a reason for admission could not be included in the survey as no facts or figures were available.

Present Investigation

There were 3,544 admissions during the two years under review. Except for 84 patients who went direct to the artificial-respiration unit, all the cases were admitted to isolation-rooms. The average daily number of these rooms available during the period was 93. The average length of stay was 16 days.

The admissions were first separated into the three age-groups: 0-14 years, 15-29 years, and 30 or more years; each group was then analysed according to the type of accommodation in which the patient was living when isolation became necessary, within the following four categories: (1) Home. (2) An L.C.C. Home: Kings Mead (Chelsea), Luxborough Lodge (St. Marylebone), or Newington Lodge (Southwark). (3) Temporary residence—that is, temporary private residence, hotel, hostel, residential club, school, college, or nursery, etc. (4) Resident hospital staff quarters or other hospital ward. The results of the analysis are set out in the Table opposite.

The majority of patients were living at home when the need for admission arose, but over one-third of the total were living elsewhere—that is, 1,304 of 3,544 cases.

Of the patients living at home, 1,366 were children under 15 years—that is, 73.8% of the total 1,850 admissions in this group; 208 more children were admitted from home in 1961 than in 1962, but there were 140 more children admitted from an L.C.C. home in 1962 than in 1961. Only 44 children were living at a temporary address other than an L.C.C. home (366); 74 children were transferred from a general hospital ward for isolation.

In the 15-29 age-group the proportion of patients living at home was much less than in the other two groups (39.7% compared with 73.8% and 72.3%). Many of these young people were living in students' hostels, overseas visitors' clubs, or other temporary accommodation. The 1961 Census has established that there has been an influx of young adults into London to work and study, often from overseas,² and no doubt many are to be found in the area served by the unit, which has an exceptionally high proportion of this type of accommodation. In this same age-group the relatively high number (284) of admissions under category 4 (resident hospital staff quarters or other hospital ward) is accounted for by the inclusion of transferred resident nursing and other hospital staff. The facilities of the unit are used, not only by ourselves but also by many general and teaching hospitals in London and even the Home Counties, for staff and in-patients needing isolation.

The number of patients aged 30 or more was relatively small (620), and most of them (448) were living at home at the time of admission. Few persons over the age of 65 years were admitted (156).

The majority of the 433 patients admitted from the L.C.C. homes were children (366), and most of the adults were women in the 15-29 age-group (49 of 67 cases). The 11

Admissions During 1961 and 1962 Analysed According to Type of Accommodation in Which the Patient was Living When Isolation Became Necessary

Category of Accommodation	1961			1962			1961 and 1962		
	M	F	Total	M	F	Total	M	F	Total
0-14 Years									
Home	437	350	787	314	265	579	751	615	1,366
An L.C.C. home	64	49	113	137	116	253	201	165	366
Temporary residence	7	12	19	11	14	25	18	26	44
Res. hosp. staff quarters or other hosp. ward	28	14	42	17	15	32	45	29	74
	536	425	961	479	410	889	1,015	835	1,850
15-29 Years									
Home	109	117	226	99	101	200	208	218	426
An L.C.C. home	0	15	15	1	34	35	1	49	50
Temporary residence	61	55	116	105	93	198	166	148	314
Res. hosp. staff quarters or other hosp. ward	11	114	125	12	147	159	23	261	284
	181	301	482	217	375	592	398	676	1,074
30+ Years									
Home	89	136	225	108	115	223	197	251	448
An L.C.C. home	1	8	9	1	7	8	2	15	17
Temporary residence	15	13	28	26	12	38	41	25	66
Res. hosp. staff quarters or other hosp. ward	19	31	50	16	23	39	35	54	89
	124	188	312	151	157	308	275	345	620
All Age-groups									
Home	635	603	1,238	521	481	1,002	1,156	1,084	2,240
An L.C.C. home	65	72	137	137	157	296	204	229	433
Temporary residence	83	80	163	142	119	261	225	199	424
Res. hosp. staff quarters or other hosp. ward	58	159	217	45	185	230	103	344	447
	841	914	1,755	847	942	1,789	1,688	1,856	3,544

babies born in the hospital during these two years were all to mothers admitted from an L.C.C. home suffering from or contacts of an infectious disease in addition to their pregnancy. The demand for beds from this source varied considerably from month to month; in 1962 there were 159 more admissions from L.C.C. homes than in 1961.

The number of admissions from all types of accommodation in 1961 varied quite considerably from month to month, but in 1962 the rate was fairly even throughout the year except for a sharp rise in November and December, which was maintained in the first three months of 1963. According to the *British Medical Journal*,³ "the notifications of infectious diseases were below average" during the quarter ended March 31, 1963. Nevertheless, the number of admissions to the unit at Western Hospital was above average for this period (581 compared with 497 in 1961 and 420 in 1962). This apparently was a general trend, at least in the London area, for the Report of the Emergency Bed Service for the year ended March 31, 1963,⁴ states: "During the winter there was a minor epidemic of gastro-enteritis, mainly among young children and babies. Such cases are almost always unacceptable to general hospitals, and in February, 1963, 139 out of 759 fever admissions were admitted through the Medical Referee procedure."

At times the demand for beds far exceeded the number available. During the two years studied 1,082 cases offered for admission had to be refused for lack of a suitable bed (667 in 1961 and 415 in 1962). During the first quarter of 1963 it was necessary to refuse 366 of the 947 cases offered for admission. The report of the Emergency Bed Service⁴ states that it was impossible to get all of the infectious cases admitted to hospital during this period, although those not admitted were "mostly from L.C.C. welfare homes, were not seriously ill, and their admission was requested mainly for public health reasons."

Of the 3,544 admissions from all types of accommodation 24.4% (864) were under 2 years, 52.2% (1,850) were under 15 years, and no less than 82.5% (2,924) were under 30 years. This age-group pattern occurred in both years under review.

The fact that so many children are admitted is of importance in any future planning, as the time, convenience, and expense of parents must be considered, unrestricted visiting for children in all types of hospital now being the policy of the Ministry.⁵

There is an increasing tendency to admit healthy mothers with sick children. This practice would become more widespread if the recommendations made in the recently published report of the team of architects making a four-year study for the Nuffield Foundation on Children in Hospital⁶ were adopted. An additional demand for accommodation in infectious diseases units would be created, as so many patients are babies or young children.

Summary and Conclusions

A statistical study of 3,544 admissions to the infectious diseases unit of the Western Hospital, London, during 1961 and 1962 showed that 82 in every 100 were under 30 years of age.

The largest demand for beds was for children under 15 years (1,850, or 52%). This is an important point for consideration in future planning. The Ministry supports the advice of paediatricians that children in hospital should receive frequent and prolonged visits from their parents; the needs and convenience of parents regarding expense and travelling-time cannot be ignored.

The analysis according to accommodation has shown that 63 in every 100 patients (2,240) were living at their usual home address at the time of admission—38 of these 63 were children under 15 years—and 37 in every 100 cases (1,304) were living in temporary accommodation unsuitable for isolation purposes. This is a factor which must be taken into account when considering the needs of the area for hospital isolation facilities, as the prevention of the spread of communicable diseases is so important.

A research study of all admissions from home over a certain period would be of interest to show in what proportion of cases admitted from home unsatisfactory housing or other social difficulties contributed to the need for admission.

During the two years studied 1,082 cases had to be refused admission because no suitable bed was available. Plans for the future might well provide for extra staffed beds to be available at short notice for use in epidemics or at other times when the demand for isolation facilities is particularly heavy.

REFERENCES

- 1 General Register Office. Hospital In-patient Enquiry—Notes on Sampling and Completion of Forms (1961), para. 29. 1963. H.M.S.O., London.
- 2 — Census 1961 England and Wales, County Report London. 1963. H.M.S.O., London.
- 3 *Brit. med. J.*, 1963, **1**, 1241.
- 4 Report of the Emergency Bed Service (King Edward's Hospital Fund for London), London, for the year ended March 31, 1963.
- 5 Ministry of Health, Circular H.M. (62), No. 39, "Visiting of Patients," 1962.
- 6 Nuffield Foundation. "Children in Hospital: Studies in Planning." Oxford Univ. Press, London.

POLIOMYELITIS AND ALLIED DISEASES

[FROM A SPECIAL CORRESPONDENT]

The ninth European Symposium on Poliomyelitis and Allied Diseases was held in Stockholm from September 1 to 4 under the presidency of Dr. RITCHIE RUSSELL. The first session, devoted to national representatives' reports, confirmed the value of vaccination in poliomyelitis. Sweden, once polio stricken, was now able to show a record of no cases this year, a few last year, and a small imported epidemic in 1961 which boosted the acceptance rate of vaccine. This vaccine was of the modified Salk variety; the Swedish authorities, headed by Professor S. Gard, have throughout the years maintained a vaccine of high antigenic potency. In England and Wales the 212 paralytic cases notified in 1962 were a low record, although 1963 may possibly be better as only nine cases have been reported in the first six months compared with 24 in 1962. All individuals between the ages of 6 months and 40 years, together with others at special risk, have now been offered vaccination in the United Kingdom, but there are still obvious gaps which are difficult to close in a free community. Live vaccine is available for those who need revaccination after a lapse of years.

Eastern Europe

Czechoslovakia and Poland, as always, presented reports on which their delegates were willing to be cross-examined. Czechoslovakia had a remarkable record after its mass immunization with Sabin's vaccine, the result, to use Dr. V. SKOVRAŇEK's words, being "the liquidation of polio." This he called the first stage. The second stage was the oral vaccination of all children born and the examination of others previously vaccinated to know the length of time antibodies would persist.