REHABILITATION PATIENTS

A STUDY OF PRINCESS MARY'S HOSPITAL, MARGATE

by

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ACKNOWLEDGEMENTS

This report presents the results of a study of the in-patients at Princess Mary's Rehabilitation Hospital, Margate. The study was initially approved by the Department of Health and Social Security in 1971, its continuation being agreed and financed in the research programme for 1972-73 of the Health Services Research Unit of the University of Kent at Canterbury. The study has had the agreement and cooperation of the medical, nursing and administrative staff of Princess Mary's, and the approval of the Secretary to the Isle of Thanet Hospital Management Committee. Numerous people, both inside and outside the Health Services Research Unit, have commented on the study and drafts of the report, and others have assisted by interviewing, computing or typing. To all of these persons, and to the patients who answered our questions, we are most grateful.

SUMMARY

Princess Mary's Rehabilitation Hospital, Margate is the largest of the 13 separate rehabilitation hospitals in England. A study was made of the patients in the hospital in order to describe their social backgrounds, to examine their problems, and to relate their problems to the rehabilitation facilities available in the hospital. Data was collected from the hospital record cards of all discharges between January and July 1972 and by interview with a one in four systematic random sample of all patients admitted between May and July 1972.

Of the 1,912 discharges between January and July, about 10% were routine postoperative pre-discharge transfers from the Isle of Thanet District Hospital, 5% were referrals from local general practitioners to the consultants in Physical Medicine and Rheumatology at Princess Mary's, and 85% were transfers for convalescence or rehabilitation from other hospitals situated mainly in London or elsewhere in the South East Metropolitan R.H.B. area. The last group included cerebrovascular accidents, diseases of the bones, and trauma, cardiac surgery and colostomy cases, but over half were gynaecology or general surgery patients. Patients'average age was 54. One third lived alone and a small number reported particular social problems. Apart from these facts, examination of housing, household, employment and educational characteristics did not show that the present patients experienced a degree of deprivation or social difficulties higher than that found among the population as a whole. The majority of patients reported a low degree of, or no, functional incapacity at the time of interview, but a small number reported extensive difficulties. A larger number reported that they would have experienced difficulty if they had been at home at the time of interview.

Conclusions were drawn that some patients appeared to need no or very little treatment at all, that some needed some assistance at home, and that others needed hospital rehabilitation. No evidence emerged why this should not be provided in association with the patient's district general hospital, as the Tunbridge Committee recommended. Given the skills and facilities available in Princess Mary's and close-by and given the gaps in the general rehabilitation services in the area, it was thought that the activities provided at Princess Mary's should be developed into a comprehensive (medical, social and vocational) general rehabilitation service for patients from hospital or their own homes in East Kent.

INTRODUCTION

Background

Princess Mary's Rehabilitation Hospital is by far the largest rehabilitation hospital in England. In 1971, its 229 beds accounted for one quarter of the beds in the 13 rehabilitation hospitals in the country, and its 3,391 patients for almost half the discharges from them [1]. The totals for these hospitals were 901 beds and 7,541 discharges. These in turn constituted a considerable proportion of the beds and patients in the specialty of physical medicine and rheumatology. There were 1,470 beds and 13,904 discharges [2]. These figures, however, are dwarfed by comparison with ones for the hospital services as a whole, which show that, of the five million in-patients discharged from hospitals in England, one and a half million received physiotherapy, on an average of nine occasions each [3]. Within this broad context, the separate rehabilitation beds and hospitals might be expected to play a distinctive part in returning the sick or handicapped as far as possible to normal life. In fact, it may well be that each of these 13 hospitals differs considerably from the others. It is important, therefore, to attempt to understand their role, particularly at a time when policy for these services is being developed, following the publication of the Tunbridge Report on Rehabilitation and ministerial decisions on it.

Objectives

The objectives of the rehabilitation research programme of the Health Services Research Unit, are three fold:-

(i) the assessment of social and medical needs for rehabilitation and aftercare services;
(ii) the identification and validation of "predictors" of prolonged incapacity and handicap;

(1) D.H.S.S. (1972 b), page 30.
(2) D.H.S.S. (1972 a), table 54.
(3) ibid, table 56.

(iii) the observation of how needs are currently met, the relating of needs to services and recommendations about possible developments in the organisation and functioning of rehabilitation and aftercare services.

This study is one of several in the research programme and presents results mainly relating to the first and third of these objectives. The particular aims of the Princess Mary's study were presented in more detail in the research programme for 1972-73. There are five.

The first is to provide, to the consultant medical staff at Princess Mary's, data about the social background and problems of the patients receiving rehabilitation there. This approach is concerned with the reasons why patients use Princess Mary's, and how non-medical factors influence the need for medical services. This in turn leads to questions about the appropriateness of different services and about the relations that should exist between them.

The second aim is to examine the problems of the group of severely handicapped people in Princess Mary's. This has not been undertaken as a separate task because of the difficulty of drawing a satisfactory dividing line between severely and less severely handicapped patients in Princess Mary's, without a pilot study. Consideration was given to analysing patients in the twelve bedded Heavily Disabled Unit as a distinct group; more patients than this, however, would have been needed for the whole study, and the problem of making distinctions would have remained. The study, therefore, includes all patients in the hospital, and is not limited to the severely handicapped.

Next, the study's aim is to relate the problems of the special group of the severely handicapped to the rehabilitation facilities available in the hospital. As the distinction between these patients and the remainder was not made initially, this objective has also been expanded to include the relationship between the needs of all patients and the facilities provided. This has taken the form not of an evaluation of the individual and specific rehabilitation services available at Princess Mary's, but of consideration of the role of the hospital as a whole. This is of particular importance in the context of the philosophy of the Tunbridge Committee, whose

report on "Rehabilitation" has been published during the course of the study, but whose recommendations have not, at the time of writing, been adopted into official policy. The Committee states (para. 104) "... rehabilitation is an integral component of the clinical management of sickness and injury and we consider that appropriate services should be contiguous with facilities for definitive medical and surgical treatment at the district general hospital. In our opinion the concept of rehabilitation centres that are geographically separate is no longer appropriate ...". From this general conclusion, they exclude centres for the multiply handicapped (perhaps), the blind, the deaf, epileptics, those with head or spinal injuries, and those dependent on drugs or alcohol (Chapter 11). Princess Mary's does not deal mainly with patients of these types, nor is it contiguous with the facilities from which its patients are drawn.

The final aims of the study are to develop questionnaires that can be used in other studies of severely handicapped people, and to introduce research staff to work with the handicapped.

Princess Mary's Hospital

Princess Mary's Hospital is situated in Margate, Kent. Margate developed largely in the second half of the last century, and now has a population of about 50,000, a relatively high proportion of whom are elderly. In common with the adjoining Isle of Thanet towns, Broadstairs and Ramsgate, it is a popular seaside resort for Londoners. The hospital itself is in a hilly part of Margate, a few minutes walk away from the sea front and from large public gardens. It is next to the shopping centre at Cliftonville, but otherwise surrounded by terraced housing.

The present hospital was opened as a convalescent home for women by London County Council in 1938 (1). The site had previously been used as a children's home for the treatment of tuberculosis. The convalescent home was closed during the war, but re-opened in 1947 and was transferred the following year to the Minister of Health. Since then it has been one of the Isle of Thanet Hospital Management

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(1) Background information is drawn from R.W. Barter and A. Carey: Princess Mary's Rehabilitation Hospital, Margate; Rehabilitation 42, July - September 1962.

Committee group of hospitals. In 1956 the King Edward's Hospital Fund for London made a grant for the provision of a physiotherapy department and gymnasium, which was the first step in converting the unit into a rehabilitation hospital. Since then an occupational therapy department and a hydrotherapy pool have been added with the assistance of another grant from the King's Fund, and 12 of the 229 beds constitute a Heavily Disabled Unit.

At the time of the study, the professional and remedial staff of the hospital is as follows:

Medical:

2 consultant physicians in physical medicine and rheumatology (now rheumatology and rehabilitation) (Dr. R.W. Barter and Dr. A. Carey), 10 sessions per week.
½ W.T.E. Senior House Officer.

Nurses (Salmon grades being introduced later in 1972):

1 Matron.
1 Assistant Matron.
1 Senior Night Sister.
1 Departmental Sister.
7 Ward Sisters.
3⅕ W.T.E. Staff Nurses.
3 Senior State Enrolled Nurses.
11½ W.T.E. State Enrolled Nurses.
9½ W.T.E. Nursing Auxilliaries.

Remedial:

4 W.T.E. Qualified Physiotherapists.
2 Physiotherapy Assistants.
1 Remedial Gymnast.
2⅓ W.T.E. Qualified Occupaticnal Therapists.
1½ W.T.E. Occupational Therapy Assistants.
2 Technical Instructors.
⅓ W.T.E. Art Therapist.

Social Work:

⅓ W.T.E. Social Work Assistant.

The rehabilitation skills represented here are not applied to all the patients in the hospital, but this study, as previously noted, does not attempt a detailed comparison of patients' needs with the particular services received. It is only with such an exercise, consisting of an examination of the skills, work and facilities provided, that a full evaluation of the hospital could be begun, in

such a way as to provide completely satisfactory evidence on which to base policy decisions, whether made in connection with the Tunbridge Report or not.

Princess Mary's is "the main residential rehabilitation unit for the South East Metropolitan Regional Board area" [1], but admits patients from much further afield. According to the King's Fund Directory of Convalescent Homes for 1970 (the last year in which Princess Mary's was entered in the directory), "A wide variety of medical and surgical cases are admitted provided they are suitable for an active rehabilitation programme." Among this variety, as will become apparent, there are differing views as to the type of patient with whom Princess Mary's is best equipped to deal. The range of cases referred from other hospitals may, however, be roughly indicated. At one end, as the referring doctor is reminded on the application form, "A Regional Board can only accept financial responsibility for convalescence where the patient needs some definite medical or nursing care and not when a Recuperative Holiday is required [2]", and "... patients in the late seventies and eighties are seldom suitable for admission as they generally require a more restful convalescent regime ... [3]". At the other, unless the patient is admitted to one of the 12 beds in the Heavily Disabled Unit, he has to be able to negotiate a corridor and stairs to reach the dining room. Normally excluded are children under 16 years old, and several diagnoses, namely diabetes, advanced cancer, recent coronary infarcts and asthma. The later sections of this report describe in more detail the patients who are admitted to Princess Mary's, and by looking at their reasons for admission and apparent needs, begin to sketch in the role that this rehabilitation hospital is filling.

Methods

Data was collected about Princess Mary's patients in two ways; by transcription of information from hospital record cards for all discharges from January to July 1972, and by interview with a one in four

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(1) R.W. Barter, op. cit.

(2) Metropolitan Regional Hospital Boards, Form A4 (Rev.3) C: Application for Convalescent Treatment - Adults.

(3) R.W. Barter, op.cit.

sample of all admissions between May and July 1972.

Record Cards

Patient record cards are raised at the time of the decision to admit the patient to Princess Mary's. They are completed partly by the admitting doctor and partly by a medical secretary. Although no doubt has been raised about the general reliability of the information on the cards, reservations may be held about three individual items.

Marital status is entered on the record card from the hospital vacancy acceptance form, itself completed by the patient. This offers the choice of only married, single, widowed. Divorced persons, though sometimes written in, are likely, therefore, to be under-represented.

The "general condition on admission" is completed by a doctor on admission of the patient. A proportion of the less serious patients - usually gynaecology - are not examined then, and consequently have no entry made. All those gynaecology patients whose condition on admission was not entered on their record cards have been presented in this report as in "good" condition. In a few other cases when the entry on the card encircled two conditions, the better of the two has been selected here.

The diagnosis in several cases, especially among postoperative and referred gynaecology patients, is either not recorded or more vague than may be expected, e.g. menorrhagia. When more than one diagnosis is recorded, the first given has been used as the principle one for the purpose of grouping the patients in analysis.

The total number of patients discharged from Princess Mary's from January to July was, according to the daily Midnight Return of changes on wards, 1,959. Information from 1,912 cards was transcribed, coverage of 97%. Losses occurred mainly in June and July, and seem to have been caused by confusion when the card take-up system was rearranged and again when interviews with patients interfered with the research staff's routine. There are no immediate reasons for supposing that the lost cases are not similar to all patients.

Interviews

The information collected from patient record cards is not sufficiently detailed to answer many questions relating to the role of Princess Mary's as a rehabilitation centre, and to the nature of the patients being treated. In order to look more closely at some of the issues emerging from the more easily accessible source, interviews, conducted on the basis of a specially developed questionnaire schedule, were held with a sample of patients.

The original intention, to interview a high proportion of the relatively small number of the more seriously disabled patients and a low proportion of the larger number not so disabled, did not prove feasible. At the start of the interviews, no sufficiently clear dividing line between the two groups was apparent. It was decided, therefore, to interview a sample of one in four of all patients admitted to the hospital, giving a total of over two hundred interviews in the three months, May to July, 1972.

A systematic random sample of all admissions was drawn, using the accumulated admissions on the ward Midnight Returns for each day as a sampling frame. Elements of stratification will have entered the sampling procedure by using this frame, but no evidence has been discovered to suggest deliberate manipulation of the Midnight Return to influence patients selected for interview. A total of 243 patients were sampled of whom 51 were men and 192 women. Comparison of the proportion of patients in each of the three admission groups in Tables 1 and 2, and comparison of the proportion of patients in each of the seven treatment groups in Tables 3 and 4 show that the sample selected for interview was representative in these respects of all patients discharged(1).

Of the 243 patients sampled, 226 were interviewed, a success rate of 93%. Of those not interviewed, 14 were women and 3 men. Three explicitly refused and one spoke very limited English. The remainder were simply noted as being discharged before the interview could take place. About a half of these stayed less than one week in Princess Mary's, some being Postoperative Admissions from the Margate Wing, with

(1) For the meaning of admission group and treatment group, see pages 8 and 9.

an expected short stay. Others stayed a more usual period, but may have deliberately avoided interviewers or not been readily available at short notice.

Interviews were conducted by three interviewers, who were required to complete a pre-printed schedule during the interview. The majority of questions were "closed" having, that is, specified alternative answers to be recorded, or a clearly definable range of possible answers. In one set of these questions, however, relating to patients' abilities to perform various activities, one interviewer, responsible for 31 of the interviews, interpreted the wording differently from the others, resulting in non-comparable answers. This is noted in the results. There were, in addition, several questions of a more open-ended nature asked. These have not all been equally productive, and attention is paid in the report mainly to those enquiring about reasons and needs for admission to Princess Mary's. The replies to these questions, however, have been subject to selection and editing in the recording, and to further editing in the analysis. They are not likely, therefore, to be represented in the report in exactly their original form.

Interviews were conducted as soon as possible after the patients' admission to Princess Mary's, interviewers travelling from Canterbury to Margate usually on three days a week. There was, however, some variability in the time after admission when the interviews took place, as reported in the results. A likely consequence of this is a reduced degree of comparability between cases, in reporting functional capacity, as this seems likely to be related to the time elapsed for recovery. Care has, therefore, to be taken in interpreting these results, as implying a precise workload for the staff of the hospital or absolutely satisfactorily defined types of patients using it.

Classification of patients

All patients about whom data is presented in the study (whether the data is drawn from record cards or from interviews) have been classified according to the source and method of their admission to Princess Mary's. There are three groups of patients. These groups of patients being referred to in the report as "admission groups". They are Postoperative patients, G.P. Referrals, and Hospital Referrals.

Postoperative patients are those (all female) who are transferred from the Margate Wing of the Isle of Thanet District Hospital, without an application being made for convalescent treatment. These patients are admitted to a single ward (Bruce) and do not come under the care of either Dr. Barter or Dr. Carey.

G.P. referrals are patients admitted as the responsibility of Dr. Barter or Dr. Carey as consultants, without an application for convalescent treatment being made. These were all patients referred from General Practitioners, and admitted after either a domiciliary visit or a consultation in an out-patient department. (It should be noted here that the majority of G.P. referrals are rheumatological cases, and that, although Princess Mary's is the major centre for the treatment of these diseases in the area, there are additional rheumatological beds for male patients in the Royal Sea Bathing Hospital, Margate.)

Hospital referred patients are those admitted following an application made on the Metropolitan Regional Hospital Boards' Form A.4 (Rev.3)C Application for Convalescent Treatment - Adults. This form is completed by a doctor in the hospital from which the patient is referred. It is used by those patients referred from Oxford and the Metropolitan Regions. It is also assumed to have been used in the case of those patients referred from hospitals outside these five regions who are, therefore, included in this class.

The hospital referred patients are subsequently further classified into "treatment groups". The classes were selected at an early stage of the study by research staff after discussions with hospital staff, so as to make distinctions that were felt to be significant in the organisation of the work of Princess Mary's. The first three groups are defined according to their main diagnosis. The groups are based on the International Classification of Diseases, 8th Revision (1957):

Group	I.C.D. Nos.
Cerebrovascular Accidents	330 - 334
Diseases of the Bones and Organs of Movement	720 - 749
Injuries	N800 - N999

Of the remaining cases, those who have had Heart Operations, permanent Colostomies or Ileostomies, or Gynaecology operations are distinguished. Finally, there remains a category of patients with Miscellaneous diagnoses, some of whom have and some of whom have not undergone surgical treatment.

RESULTS

DISCHARGES

Type of Admission

As indicated in the Introduction, the initial classification of patients is by the nature of their admission to Princess Mary's. Post-operative patients are those transferred routinely from the Margate Wing of the Isle of Thanet District Hospital. G.P. referrals are those admitted after referral from general practitioners to either of the consultants in Princess Mary's. Hospital referrals are those admitted to Princess Mary's after in-patient treatment at another hospital. A total of 1,912 record cards were surveyed on the patients' discharge between January and July 1972, distributed as in Table 1.

The 204 postoperative patients appear to be transferred to Princess Mary's solely because of the demand for their beds in the Margate Wing. They are not transferred by means of an Application for Convalescent Treatment form, in which they differ from the Hospital Referrals (who include some other patients from the Margate Wing). They do not come under the supervision of the consultants in Princess Mary's. It would be mistaken to think of them as rehabilitation cases, and appear to be misleading to continue to have the 12 beds they occupy designated "rehabilitation". In effect, they occupy a pre-discharge ward in the hospital but have little contact with the rest of it.

The 101 G.P. referrals are the personal responsibility of the consultants. They will be seen to be a mixture of rheumatological cases who need acute, clinical treatment and who additionally may require varying amounts of rehabilitation, and of more purely rehabilitation cases. This is a normal consultant service to general practitioners.

Patients referred from other hospitals constitute the large bulk of the discharges from Princess Mary's. These are as heterogeneous as the G.P. referrals, but in a different way. All 1,607 occupy rehabilitation beds, and almost all receive some active rehabilitation treatment, at minimum in the form of a short period of physiotherapy each day. The difficulty, however, lies in the fact that some of the patients are considered by some of the staff and by themselves to be convalescent

rather than rehabilitation cases. The distinction is not one that has been elucidated successfully in the study. Furthermore, it will become apparent that among these patients there is a considerable range of severity and variety of rehabilitation needs.

Table 2 shows the number of patients interviewed (in the one in four sample between May and July 1972). This is given here as an indication of the representativeness of the sample selected, and as a starting point for those subsequent results which are based only on interviews and not on record cards.

Treatment Category

The second stage of the classification, that will be used throughout the rest of the report, is of the Hospital Referrals into treatment groups. This distinguishes groups of these patients which are felt to be distinctive in the work of Princess Mary's, according to their diagnosis or operation. The number of discharges in each group is shown in Table 3.

A few words may be said about each of these groups by way of introduction.

The relatively small number of cerebrovascular accident patients are, on the whole, the most severely incapacitated at Princess Mary's, often with seriously disabling hemiplegia. They are the major occupants of the Heavily Disabled Unit in the hospital; and may also be a group of patients frequently present in geriatric rehabilitation departments.

The diseases of the bones group are the third largest, with about seven discharges per week. They are, in fact, a highly selected sub-section of these diagnoses, about two thirds of them being osteoarthritis of the hip, usually with a prosthetic device implanted. The majority of patients with this diagnosis would expect to recover routinely, with the assistance of the therapy departments of the acute hospital.

The trauma patients perhaps have similar rehabilitation needs to the previous group, over half having had a fractured femur or neck of femur.

The small number of cardiac surgery patients need a period of graduated increasing activity, building up their confidence and strength.

The colostomy and ileostomy patients were the subject of comment by the Goodman Committee, (Ministry of Health, 1959), who noted that "Most of these patients require more privacy for personal hygiene than normal (convalescent) accommodation offers and few homes seem able to provide this and to give the patient the personal encouragement and help which he needs during the early days of his convalescence".

The large number of gynaecology patients perhaps reflects Princess Mary's past as a convalescent home for women. These usually are fairly routine cases from the medical rehabilitation point of view, and are not under consultant supervision. Barker (1968) has drawn attention to increased referral rates to psychiatric services among hysterectomy patients in the longer term. Princess Mary's nursing staff reported in conversation that they assumed some emotional disturbance quite frequently existed in the immediate postoperative period, but, while no clinical evidence was obtained on this point in this study, the patients themselves do not report it as a major influence on their referral to the hospital (see page 46).

The large miscellaneous group (a quarter of all patients) are a heterogeneous mixture, of whom approaching two thirds have undergone abdominal surgery for one of a variety of conditions. For these patients, as for the gynaecology ones, there seems to have been no prima facie reasoning that separate rehabilitation, as opposed to convalescent facilities, are needed.

Table 4 shows the number of patients interviewed in each treatment group. This again, indicates the representativeness of the sample, and will be used as a basis of subsequent results.

DEMOGRAPHIC CHARACTERISTICS OF PATIENTS

Sex

Mention has already been made of Princess Mary's past as a unit for women. At present 19% of all discharges are men and 81% women. This relationship varies between patient groups, one of which consists by definition of women only, and others of which appear to have sex related incidence. Table 5 shows the number of men and women in each admission group.

The absence of men in the postoperative patients is administratively defined; they are not admitted to Princess Mary's.

Half the women hospital referrals are gynaecology patients. The distribution between men and women of all these patients is shown in Table 6.

Very crude comparisons suggest that much of the difference in the numbers of men and women treated at Princess Mary's is explained by similar differences in the numbers treated in acute hospitals. These take the form of comparison of the ratio of men to women in the Princess Mary's patient groups with the ratio in the numbers of discharges from all hospitals in England and Wales for certain diagnoses, as shown in Table 5 of the Report on Hospital In-patient Enquiry for 1969, Part 1. The diagnoses selected for comparison are the principal but by no means the only ones to be found in the Princess Mary's patient groups. H.I.P.E. "C.V.A." consists of I.C.D. categories 430 - 434 inclusive, "arthritis" of 710 - 715, and "mitral valve disease" of 394. Table 7 shows the ratio of male to female discharges in Princess Mary's and all hospital discharges in certain diagnoses, on this basis.

This suggests that, in the cerebrovascular accident and cardiac surgery groups, there is little selection of patients to Princess Mary's by sex. There is a stronger indication that there is a selection of more female diseases of the bones patients. Although it may be noted that the ratio of male to female fractures of the femur neck is 1:3.6, the other patient groups are so heterogeneous as to make even the most crude comparison impossible. The signs are, therefore, that although there are three and a half times as many female as male admissions to

Princess Mary's, this is almost entirely due to the referral of various patient groups and the distribution of all male and female cases within these groups, rather than to the selection of women rather than men within each patient group for treatment at Princess Mary's. The implication is that no reallocation of beds from women to men is needed, with the present case mix assuming the rehabilitation needs of men and women are similar.

Age

The majority of Princess Mary's patients are middle aged or elderly. There are smaller proportions of young adults and of the very old. The average age of all patients is 54; that of the different admission groups is shown in Table 8.

These averages are influenced considerably by the presence of the large numbers of relatively young gynaecology patients, both among the postoperative cases and the hospital referrals. Table 9 shows the quite pronounced variations between the different groups of the hospital referred patients.

This distribution suggests, in the most general terms, that the more specific and difficult rehabilitation needs lie among the older rather than the younger patients in the hospital. The simple averages, however, conceal further variations.

The men are on average four years older than the women. This is because of the large number of relatively young gynaecology patients. In most of the other groups, however, the men tend to be the younger. The differences are largest among diseases of the bones (60 and 65), trauma (55 and 60), and cardiac surgery (46 and 56).

The averages also conceal the range and distribution of ages. Table 10 shows the distribution of ages by decade among all patients. This is distinctly bimodal, the peak in the forties being caused largely by the presence of the gynaecology patients, and that in the sixties by all the other groups. The result is that each of the three decades between 40 and 69 account for between 20% and 25% of the patients. A further 15% are aged 70 to 79 and 11% 30 to 39.

Postoperative patients, besides being younger than the others, show a flatter distribution of ages. This is partly caused by the presence of 21 non-gynaecology cases in this group, 17 of whom are aged 60 or more, and who have an average age of 70. The remaining gynaecology patients in this group have an average age of 42.

The G.P. referrals also display a wide range of ages, one being under 20 and one over 90, but are more concentrated in the 50 to 69 age range. The average age is 57 and one third of them are between 60 and 69.

The patients referred from other hospitals reveal in their distribution nothing distinctively different from what has been said about the average ages, or about the distribution among all ages, which they dominate. Table 11 shows the distribution by decade of these patients.

Some points are worth noting about most of these groups.

The three cerebrovascular accident patients under 50 and a proportion of those under 60 would seem to have a high priority for rehabilitation, presumably being potentially relatively active, or alternatively having a long period of dependence in front of them. At the other end of the scale the 27 patients over 60 raise the issue of the distinction between the rehabilitation provided in Princess Mary's and that in a geriatric department.

The most common patients in the diseases of the bones group are the elderly women - those over 60 are 63% of the group, and are 21% of all hospital referrals of this age.

The younger trauma patients have sustained a variety of injuries. The older ones, among whom there are more women than men, have fractured femurs and necks of femurs.

The colostomies and ileostomies should perhaps have been analysed separately. The six men and one woman under 30 are all ileostomy cases. They might be expected, both because of their condition and their age, to have different management and psychological and social adjustment problems from the colostomy patients. The latter are middle aged or elderly.

The gynaecology patients, as noted, tend to be somewhat younger than the other patients referred from other hospitals. They are, however, on average seven years older than the postoperative gynaecology patients, an indication that their age may be important in their selection for treatment at Princess Mary's.

The miscellaneous group show a wide range of ages; eight are less than 20 and four more than 80. There is a fairly small but steady flow of patients under 50. No clear evidence has emerged to confirm the hypothesis that these younger patients have distinctive medical or social circumstances necessitating rehabilitation. 73% of the group, however, are aged 50 or more, for many of whom a more general assistance in regaining their strength would appear to be appropriate.

SOCIAL CHARACTERISTICS

This section of the report begins to explore in more detail characteristics of the patients, not all of which are collected routinely or analysed systematically in hospitals. It covers residence, housing, household, occupation and education, but not income. The presentation now becomes more complicated, because the results are given in sections according to their topic, irrespective of whether they are based on the full survey of record cards for discharges between January and July or on the interviews with the sample of admissions between June and July. It is hoped, in this way to build up a coherent description of the patients using Princess Mary's, that can be understood as a whole.

This description is an attempt to fulfil two further purposes. The first is to examine possible factors influencing the reasons for admission to Princess Mary's. It is widely accepted that non-medical factors influence the use of acute hospital beds[1]. It is reasonable to suppose, therefore, that these factors will be also present to a marked degree in patients receiving rehabilitative treatment, with its explicit concern for their subsequent functioning. The second purpose is to take note of social problems presented by patients that may add to the rehabilitation problems, to examine how suitable Princess Mary's is as a place to solve them. This is important because of the argument that underlies much of the Tunbridge Report (c.f. paragraphs 309 to 312 on social service departments), that the success of resettling disabled individuals in the community depends not only on the degree of success of the medical rehabilitation efforts, but also on communication and co-ordination with those providing social services to the patient at home. If this is accepted, there must be doubt whether problems at a patient's home in London could be solved from a rehabilitation hospital in Margate.

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[1] Forsyth and Logan (1960) concluded that about one quarter of patients in general medical beds could, on clinical grounds, have been given treatment elsewhere (see p. 104). See also Butler and Pearson (1970), pages 48-50, and Meredith et al (1968), page 170.

Place of Residence

Patients' place of residence was recorded from their record cards. It is not analysed in any very great detail, as one cannot be certain that it gives much valid information about the patients' own personal circumstances, without more knowledge of individual streets. As an indicator of social condition it is of little importance to us as a variable in explaining admission to Princess Mary's, as we do not have information about the population of patients from which Princess Mary's patients are drawn. Nor does it appear to be as important in explaining the admission of patients referred from other hospitals, as is the fact of being in a particular hospital. 80 gynaecological patients are referred from St. Helier's Hospital and 12 from Mayday, both in South London. The referring hospitals themselves will be analysed for the purely spatial aspects of the origin of patients.

95% of postoperative patients live in the Isle of Thanet, that is Margate, Broadstairs or Ramsgate. All but two of the rest live elsewhere in Kent.

All but one of the G.P. referrals live in East Kent, 70% of them in the Isle of Thanet. Outside Thanet, there is an indication that distance of residence from an outpatient department where clinics are held by the Princess Mary's consultants reduces the likelihood of admission to Princess Mary's. One patient resident in each of Herne Bay and Sandwich was discharged, where there are no clinics, and twelve in Whitstable and eight in Deal, where there are. This suggests an unevenness in the coverage of the service provided by Princess Mary's, and the possibility of unmet needs.

The large majority of hospital referred patients live in the areas of the Metropolitan Regional Hospital Boards or in Buckinghamshire, which is covered by the Oxford R.H.B. Fourteen patients, however, live in provincial regions (Sheffield, East Anglia, Wessex and South Western), but were referred from hospitals in London. It would seem reasonable that, if rehabilitation is necessary for these patients, they should return home for it, if it is available nearby, rather than travel to Margate. A smaller number of patients both live in and are referred from various provincial regions.

Table 12 shows the correspondence between region of residence and region in which referring hospital is situated. The comparability is not exact, as residence was described in terms of boroughs or postal districts in London, which were then allocated to the region in which they are mainly located. This may have resulted in an over-recording of North East, at the expense of North West residents. Nevertheless, it appears that the large majority of patients are referred from the region in which they live. The same correspondence holds for the proportions of patients inside and outside London, and for their distribution in Kent and Sussex.

Length of Residence

Patients interviewed, having been asked their home address, were asked how long they had lived there. A wide range of replies was received, the large majority apparently indicating fixed accommodation arrangements and no problems. 48% of patients have been living at their present address for more than ten years, and a further 27% for between three and ten years. This 75% of the patients is spread among all patient groups.

The same proportion of Princess Mary's patients (11%) as South East Region residents (12%)[1] have lived at their present address for one year or less. They are concentrated in two patient groups. Six of the twenty postoperative patients report stays of this length. This may be related to their age. An even higher proportion (six of the eleven) trauma patients report this short length of residence. This is the first of several distinctive characteristics of these injured patients. For the majority of Princess Mary's patients, however, there are no indications of instability here.

Temporary Addresses

Patients were asked whether their addresses are temporary or permanent. A total of 17 out of the 226 patients report it to be temporary. This includes four postoperative patients, three of whom also report lengths of residence of more than one year. Thus nine of the twenty postoperative patients have recently changed or are about

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(1) G.R.O. Sample Census 1966, England and Wales, Migration Regional Report, South East Region, Table 1A.

to change their addresses, a much higher proportion than in the other groups. None of the G.P. referrals report temporary addresses, confirming the indication of the length of residence (none less than a year) that they are relatively stable. 13 patients referred from other hospitals report temporary addresses. There is a tendency for these to be single or widowed and to live in privately rented flats. One group of three patients is aged 20 to 29, and another of six 60 to 69. Although no relationship between temporary residence and diagnosis is present, the slight clustering between 60 and 69 suggests a possible interaction of medical and social conditions causing resettlement problems for a small number of patients.

House ownership

In the interviews, patients were asked a series of questions about their housing. These concerned ownership, type of building, number and type of rooms, plumbing and power. The attempt was made to identify a group of patients, socially deprived in terms of their housing. The intention was to examine these patients' contacts and incapacity, so that the needs of broad categories of socially deprived and handicapped patients could be discussed. The attempt has been unsuccessful. The results show patients with a variety of backgrounds attending Princess Mary's. Instead of easily classifiable groups of problems, the results show patients with a range of intermixed and overlapping characteristics, only a few of which are indicative of problems or difficulties.

Slightly under half the patients own their accommodation. About one quarter rent from local authorities and the same proportion from private landlords, as shown in Table 13.

Of the nine "other" owners, all but two are the patients' (or patients' spouses') employers. In those cases in which it is the employee himself who is ill, the illness, if protracted, may have repercussions on both employment and housing at the same time, increasing the problems of resettlement.

A few points about the details of the distribution may be noted. Comparison, in Table 13, of the type of tenure of Princess Mary's patients with that of all persons in the South East Standard Region does not suggest that there is any selection of patients to Princess Mary's by type of tenure. There is no immediate sign, in other words,

that security of social background is directly affecting rehabilitation received. The overall picture may be misleading, however, because 53% of the gynaecology patients are owner occupiers, which indicates that they, at least, do not come from the poorest social environments. This may also be true of the diseases of the bones and colostomy patients, (10 out of 18 and 7 out of 11, respectively, being owner occupiers). It may be, therefore, that among the miscellaneous group of patients (35% of whom rent their accommodation from private landlords) social factors are slightly more important in determining referrals to Princess Mary's.

Type of Accommodation

After being asked about the ownership of their accommodation, patients were asked about its physical construction, whether it is a house, bungalow or flat, and whether it is terraced or detached, for example. Apart from the fact that seven of the twenty postoperative patients are flat-dwellers, which is related to their age and relative instability, there is nothing to note about them or the G.P. referrals. Among hospital referrals, however, strong patterns are visible.

About one third of the hospital referred patients live in semi-detached houses, one third in flats or maisonettes and one quarter in terraced houses. Analysis of this distribution by type of ownership adds further plausibility to the suggestion that poor social environments are not the major influence in determining referrals to Princess Mary's. Thus, the largest single house-ownership house-type group consists of the 45 owner-occupiers of semidetached houses. In connection with these, and with the 20 semidetached council house dwellers, one is tempted to think of inter-war London suburban housing estates. The distribution of terraced houses (21 owner occupied and 10 council owned) also perhaps indicates a degree of security among these patients. The small number of bungalow dwellers is interesting not because of the ownership, but because it is an indication of the small extent to which Princess Mary's seems to be serving the retirement areas of the Kent and Sussex coast. These persons are presumably rehabilitated elsewhere after illness, perhaps in geriatric departments. The flat dwellers present the opposite picture to the housedwellers. Only four are owner occupiers, while 32 rent privately. Analysis of the private renters, both as a whole and for each type of accommodation taken separately, in terms

of social class and of household problems, reveals no major groupings of circumstances likely to affect rehabilitation needs. The overall impression is of a normal range of circumstances, with no significant indicators for rehabilitation at Princess Mary's.

Household Amenities

Patients were asked about the presence of various household amenities - electricity, gas, kitchen or cooking equipment, bath, water - in their accommodation, in order to indicate the need for adaptations or aids among the handicapped using Princess Mary's, and in an attempt to discover the extent of the hospital's functions in respect of the socially deprived. In fact, such a small number of patients report any deficiency in amenities that nothing can be said about the number who might need adaptions. The answers may, however, be important indicators of the general social and economic situation of the patients. All patients have an electricity supply. All but 12 have sole use of a kitchen; of these 12, five have cooking facilities but not in a separate room and seven share a kitchen with another household. 13 share their bath with another household and 12 have no fixed bath at all. No patients are without a cold water supply, but four share one; five have no supply of hot water and another five share one. All but ten have sole use of a lavatory, and all but ten have a W.C. inside the house. Thus, the proportions of patients not having a fixed bath, not having hot water, and not having an inside W.C. vary between 2% and 5% of the total. These proportions are less than half those for the population of the South Eastern Region as a whole in 1966[1], but probably about the same as for the Region's population in 1971 (the relevant census data not being published at the time of writing). As two of those reporting shared amenities are postoperative patients, we are left with under 5% of the hospital referrals reporting a lack of amenities that might indicate social deprivation or influence the need for referral to Princess Mary's for rehabilitation. Indeed, the comparitive figures indicate that the hospital is not dealing with an unduly high number of socially deprived patients, and may well be dealing with less than might be expected. If so, it might be deliberate policy if Princess Mary's is seen as being an unsuitable place to handle such problems, especially for patients from

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(1) O.P.C.S. (1971a), Table 70.

London; or it might be unintentional if doctors in acute hospitals have difficulty in identifying such patients as in need of services. Whichever is the case at present, the interrelationship between the medical and social problems of the handicapped, as demonstrated for example in the chapters on housing in the Survey of the Handicapped and Impaired (O.P.C.S. 1971b), shows the importance of attempting to develop medical and social rehabilitation and resettlement services side by side.

Marital Status

Marital status was recorded from patients' record cards. As indicated in the introduction, divorced and separated patients are likely to be slightly under-represented in the results, presumably with a corresponding increase in the number of married ones. With this in mind, it may be noted that there is perhaps an indication that married patients are under-represented at Princess Mary's. This is suggested by a comparison of the percentage of each sex married, among Princess Mary's discharges and among all discharges aged 15 or more from non-psychiatric hospitals in 1968[1]. For men, 52% of Princess Mary's and 66% of H.I.P.E. discharges are married; for women, the corresponding figures are 60% and 72%. This, however, is no more than a tentative suggestion that use of Princess Mary's may be dependent to some extent on a lack of adequate support at home. The hypothesis could only be evaluated adequately by means of a comparison of marital status rates within matching diagnostic groups, standardised for diagnosis, age and sex. This exercise is beyond the scope of the present analysis; the results for Princess Mary's will be presented alone and comments made only upon their internal appearance.

Table 15 shows the proportion of each admission group having each status. 57% of all patients are married, 15% single and 20% widowed. The major variation from this is the postoperative patients, of whom 69% are married, reflecting the fact that they are mainly young gynaecology patients.

Table 16 shows the proportions for each treatment category of the hospital referred patients. There are some wide differences here, one or two of which are increased when men and women are considered separately. Of the diseases of the bones cases, 38% are married and

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(1) Department of Health and Social Security, Report on Hospital In-patient Enquiry for 1969, Part 1, Table 5.

the same proportion widowed. The proportion of widows is even higher among the women, 46%. Only 20% of the trauma patients are married; 30% are single and 32% widowed. Both of the last two are surprisingly high, as is the proportion of divorced or separated patients. Again this is more pronounced among the women, only 15% of whom are married. The fact that the proportions of single and divorced patients are high indicates that the cause of the actual injury or the need for rehabilitation is not simply related to the increasing age of the patients but is a definite product of their way of life. Of the colostomy and ileostomy patients, 30% are single. This is related to the age and diagnosis of the latter, and the fairly high proportion may actually be caused by the illness. 73% of the gynaecology patients are married, and relatively small proportions not. With this exception, however, the main theme is one of high numbers of single and widowed patients, caused perhaps by the initial incidence of the illnesses and/or by specific selection for rehabilitation. Evidence in the next section and from the patients' own views supports to some extent the latter interpretation.

Household Composition

It was hypothesised that, just as the physical environment of the patients' homes might affect their need for, or chances of receiving, rehabilitation at Princess Mary's, so might their more purely social circumstances. In general, these would exist in the form of excessive demands on the sick person, either because he has no one to support him or because there are too many others demanding his services at home.

Patients were asked in interviews about other members of their household. The major finding concerns those living alone. These consist of two postoperative patients, three G.P. referrals, and sixty-three (32%) of the hospital referrals. The proportion of patients living alone varies between treatment groups, as illustrated in Table 17. It is low among gynaecology patients, medium among the miscellaneous and diseases of the bones groups, and high among the small number of trauma and C.V.L. patients. The fact of living alone is related to age, 17% of those under 30 and 56% of those over 60 do so, and to marital status, 56% of single people, 83% of widows, divorcees and the legally separated, and 4% of the married do so. It is also related to functional capacity. Within each patient group the degree of incapacity (as discussed on page 50)

among patients living alone is higher than or equal to that among patients living with others. This is presumably related to the greater age of those living alone. Although no standardisation for age differences has been carried out, it seems to indicate that it is incorrect to think of two groups of patients being referred to Princess Mary's, the one with severe incapacity, and the other with lesser incapacity admitted largely because of a lack of support at home. This conclusion,however, does not entirely disprove the idea that the fact, that one fifth of all the patients referred to Princess Mary's are elderly (over 60) and live alone, may be related to reasons and need for admission. Nor does it remove the consideration, important in planning treatment at Princess Mary's, that those without assistance will need to be returned home with a higher degree of capability that those with it.

A few further members of various households may also have problems affecting their rehabilitation needs. Two patients live only with children under 16, four only with parents over 65, and nine only with a spouse over 65. It is not suggested that these are in any way unexpectedly large numbers, but extra attention may be needed for these patients. A further seven patients live with, but not only with, four or more children under 16. Six of these are gynaecology patients, who, it can be surmised, were not felt to be fit enough to take up their household duties immediately on discharge from acute hospital.

Household Comments

While dealing with household composition and housing, interviewers were required to record any additional comments made by respondents that modified the impression being given. Such comments were recorded for four postoperative patients, one G.P. referral and thirty-one hospital referrals. While this is not an unduly large number, a few patients report circumstances clearly related to the reason for admission to Princess Mary's. One woman, for example, fears her bad-tempered alcoholic husband might injure her after her operation; a man reports that his wife is an in-patient in Princess Mary's. The large majority of those making comments, however, report circumstances which are at most temporarily distressing to the patient, or which may pose resettlement problems. Four patients report that a spouse has recently died, and eleven that a member of their family is currently ill. Five report

that their accommodation is unsuitable or no longer agailable to them. Four comment on difficulties in the relationship with their spouse. These items are often very vague, and problems clearly vary in their importance. If they are of concern to the health or social services at all, two approaches are possible: either a period away from them allows the patient to recuperate to the extent that he can tackle them or live with them himself; or they ought to be approached by that part of the service most appropriate to them. If the latter is chosen, it seems that Princess Mary's hospital is not close enough to a patients' home or social services for the majority of patients, nor involved for long enough, to make a substantial contribution.

Occupational Characteristics

In the interviews, patients were asked several questions about the nature of their previous and present employment and the effect of their illness on their work. Princess Mary's Hospital has a small workshop in the Occupational Therapy Department, but does not provide a specifically vocational rehabilitation service. The lack of the service in Princess Mary's, in contrast to that in some other units, most probably explains the absence of the patients who would benefit from it. There are, however, some slight indications of unmet need among the patients.

Table 18 shows the social class of the hospital referred patients interviewed. The distribution itself does not reveal any major bias towards any particular class in Princess Mary's. Its heterogeneity, however, does suggest the difficulties of providing sufficiently wide ranging vocational rehabilitation programmes to be effective. The postoperative patients and G.P. referrals present a similar pattern.

Table 19 shows the employment status of the men and women referred from other hospitals. This does not indicate an abnormally high unemployment rate or, for the age distribution, an unexpected number of retired people among Princess Mary's patients. One quarter of the women are housewives. This suggests that, if measures are required to return patients to particular situations, as much attention should be paid to a wide range of normal daily living activities as to employment.

A small number of the hospital referred patients report that their illness has affected their work. 12 say that it has made them reduce the amount or change the type; eight of these are men and four women, six aged under 50, four between 50 and 60, and two over 60. A further 16 patients say their illness has made them stop work or retire. Two of these are men and fourteen women. One of the men and eight of the women are at or past the normal retirement age. In sum, eighteen patients under the normal retiring age report their illness has affected their work and ten of these are women. It appears that there is very little need for vocational rehabilitation services among the patients currently attending Princess Mary's, and that these would be difficult to provide for them because of the variety of patients involved.

Educational Qualifications

Patients were asked in interviews about their educational attainments. The replies, as with social class, do not of themselves reveal anything unexpected, but do suggest that different methods of giving advice and instruction during rehabilitation will be required. 11 of the hospital referred patients report leaving school before the age of 14. On the other hand, 38 left at age 16 or more. Of those leaving above the minimum age, 27 report an educational qualification of some kind, half of which are, in fact, secretarial qualifications among women.

SERVICES AND NEEDS

The preceding sections of the report have presented some demographic and social characteristics of patients that might be considered background to their current episode of illness and hospital treatment. The attempt has been made, in describing the patients, to clarify those factors that are important in influencing admission to Princess Mary's, or the type of work that ought to be done there. The subsequent sections continue this task, but focus more on series of individual events that usually have more immediate impact on rehabilitation requirements.

Previous Admissions

Patients were asked in interviews whether they had ever previously been admitted to any rehabilitation or convalescent hospitals, and in particular to Princess Mary's. Three postoperative patients and five of the eleven G.P. referrals report a previous admission to Princess Mary's, a reflection of the fact that it is a local hospital service being provided. 12 of the 195 patients referred from other hospitals also have previous admissions to Princess Mary's. One hospital referral reports a previous admission to another rehabilitation hospital, and thirty to other convalescent hospitals. A total of 43 hospital referred patients have, therefore, previous admissions to a convalescent or rehabilitation hospital. These patients are to be found in due proportion in each of the diagnostic groups, and consist of both men and women. They do not report different needs or reasons for admission to Princess Mary's from the other patients.

The 43 with previous admissions constitute 22% of the hospital referred patients. The contrast of this, with the fact that 27,347 (0.5%) of the total of 5,143,444 discharges from all hospitals in England in 1971 were admitted to separate convalescent or rehabilitation hospitals[1], suggests that there is a positive association between previous admission and readmission to these hospitals. It is, however, not possible to be certain about this, without knowing the number of previous admissions, who are not readmitted. If, nevertheless, it is assumed that 1% of all discharges have a previous convalescent or rehabilitation

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(1) Department of Health and Social Security: Annual Report, 1971, Table 54. Department of Health and Social Security: Hospital Costing Returns, 1971.

admission (i.e. 51,434 patients), and that the proportion of readmissions at Princess Mary's is found elsewhere, the result that 6,016 previous admissions (i.e. 22% of the 27,347) are readmitted has two consequences. The first is that the probability of admission is 22 times greater among those with previous admissions than among all patients. For those with previous admissions the probability is 1 in 8.5 (i.e. 51,434 discharges with a previous admission to this type of hospital of whom 6,016 are readmitted); for all patients it is 1 in 188.1 (i.e. 5,143,444 discharges in all of whom 27,347 are admitted). The second consequence is that this figure of 1 in 8.5 means that for every one patient with a previous admission, who is readmitted, there are a further 7.5, who are not. Information about previous admissions would, therefore, be only of marginal practical use as a predictor of readmission. Variation of the assumption about the proportion of all discharges with previous convalescent or rehabilitation admissions alters the conclusions. If it is assumed, for example, that 5% have previous admissions, the probability of admission is only four times greater among patients with previous admissions than among all patients, and for every one with a previous admission, who is readmitted, there are 42 who are not. But, whatever the exact strength of the relationship, the reasons for it remain unclear.

Diagnosis

A few words have been said about the most common diagnoses and operations, in the initial discussion of the classification of patients discharged. These have been recorded from the record cards, and the first given in cases of more than one is that analysed.

In fact, the diagnosis of more than half the postoperative patients (109 of the 204) is not recorded on the cards. These were shown, by the operations performed, mainly hysterectomies and repairs, to be, along with another 73 patients, gynaecology cases. The other 22 postoperative patients are mainly suffering from diseases of the digestive system or neoplasms, resulting in abdominal operations.

The largest single group among the G.P. referrals consists of rheumatoid arthritis (31 cases). There are 24 patients who fall into the I.C.D. category "Other Diseases of the Bones"; these are mainly osteoporosis. Another seven have a diagnoses of osteoarthritis, and the same number prolapsed intervertebral discs. The remaining 32 have a

variety of diagnoses. Half of them are in the diseases of the bones and organs of movement group, and half are not, consisting, for example, of sprains and strains, C.V.A.s, and gout.

The diseases of the bones and organs of movement patients referred from other hospitals have, as previously remarked, a very different range of diagnoses from the G.P. referrals. 152 of the 221 have osteoarthritis of the hip. The large majority of these have had an artificial joint implanted to improve mobility and reduce pain, but a small number have had their joint fixed. Osteoarthritis of other sites accounts for 11 patients, and rheumatoid arthritis for 34, the remainder having a variety of diagnoses.

Nearly all the trauma patients have had fractured bones. An equal number (24 each) have fractures of the neck of femur or of the femur. 12 have other fractures of the lower limb, and 10 of other sites. 5 have burns, 5 miscellaneous head injuries, and 7 other injuries.

The diagnoses of the gynaecology patients are, again, not always clearly recorded on the record cards. 62 of the 691 are not known at all, and a further 223 can only be classified as disorders of menstruation, the cause of the bleeding or menorrhagia not being specified. 47 have had malignant neoplasms removed, 107 uterine fibroids and 46 ovarian cysts. 160 patients have suffered utero-vaginal prolapses and 46 a variety of other disorders.

The miscellaneous group presents a wider range of illnesses. 102 (one quarter) are recorded as having neoplasms, of which 44 involve the digestive system, 21 the lung or bronchus, and 17 the breast. 23 have diseases of the circulatory system, 17 of the respiratory system, 16 of the genito-urinary system, and 231 of the digestive system. These include 32 cases of stomach ulcer, 50 of duodenal ulcer, 37 of cholelithiasis and 23 of cholecystitis. The remaining 36 of the 425 have a variety of other diseases. In all, 271 (64%) have undergone abdominal surgery, 94 (22%) other surgery, and 60 (14%) none.

Time treated

Patients were asked how long they had been receiving treatment for their current illness before being admitted to their acute hospital. On the whole, the considerable but unsystematic variations in the answers to this question are unintelligible.

Only one point is worth noting. A straightforward comparison of the local gynaecology postoperative patients and the gynaecology hospital referrals shows that two (11%) of the former have been treated for one year or more, and forty-four (54%) of the latter for the same period. Furthermore, 17 (21%) of the gynaecology hospital referrals have been treated for five or more years. This is perhaps a sign that length of illness and treatment are indicators of an increased probability of referral to Princess Mary's, and of need for rest or rehabilitation. It also raises questions about gynaecology waiting lists, and whether their reduction might reduce the need for referral for rehabilitation.

Contacts with services

Patients were asked whether, before their admission to hospital, they had been in contact with any of the following health or social services: general practitioner, social work, physiotherapy, meals on wheels, district nurse, home nurse, health visitor, home help, and any kind of voluntary visitor. If they said yes, they were asked how frequently they had been seeing the person giving the service.

The replies to these questions are to some degree unreliable because no time period was specified in which the contact was to have taken place. Nevertheless, they suggest that the large majority of patients have been suffering from illnesses that have not been so disabling as to necessitate very much support or supervision at home. Of the 20 postoperative patients, 17 report contact before admission only with their G.P., and 2 elderly women also with the district nurse and home help service. Nine G.P. referrals saw only their G.P.; one was also receiving physiotherapy. Of the 195 hospital referrals, 29 report not seeing their G.P. at all. These include some emergency admissions and some people who seem to have been under the care of an outpatient department. 139 report seeing their G.P. and nobody else, 19 their G.P. and one other service. Five patients report contact with other services, but not their G.P., and three with their G.P. and more than one other service. Of these three, two were disabled prior to the illness for which they received acute hospital treatment, and one has accommodation problems. Among the services, nine patients were in contact with social workers, six were receiving the assistance of home helps, and a smaller number each of the others. As noted, the majority of patients received these services singly, in

addition to being under the care of their G.P. They do not receive the rehabilitation service provided by Princess Mary's after receiving much support from the health and social services for handicap at home.

Referring Hospital

The hospital from which patients are referred for admission to Princess Mary's has been analysed from the patient record cards. As mentioned, there is a close correspondence between place of residence and location of referring hospital. It is, therefore, valid to deal here with the questions arising from the geographical origins of patients that might have been raised in the section on place of residence. The proportions of patients referred from hospitals in different regions as recorded in interviews correspond to the proportions found from the record cards, as do, in general, those from the individual referring hospitals. This is of importance in establishing the validity of the results of the interviews, because this section will show the importance of decisions made within individual hospitals in determining patients' admission to Princess Mary's and, consequently, their social and functional characteristics. We begin, however, by discussing the postoperative patients and G.P. referrals, before moving on to the regional aspects of the hospital referrals and ending by considering individual hospitals and diagnostic groups.

All the postoperative patients are, by definition, admitted from the Margate Wing of the Isle of Thanet District Hospital.

Table 20 shows the place at which the patients referred by general practitioners were seen by one of the consultants from Princess Mary's. These are hospitals at which outpatient clinics are held. The table demonstrates the extent to which this is a local service, 57% of the patients being seen at hospitals within the Isle of Thanet group. There are smaller numbers of patients drawn from the edge of neighbouring H.M.Cs.

Table 21 shows the number of patients referred to Princess Mary's from other hospitals, including teaching hospitals, located in each region. The major point about this is the extent to which Princess Mary's is providing a service to hospitals outside the South East Metropolitan Regional area. 65% of patients are referred from hospitals in the other three metropolitan regions or in the Oxford region.

The South East Metropolitan region is, nevertheless, the largest single user of Princess Mary's. Patients in each treatment group are referred from hospitals throughout the region. The numbers are high despite the presence of other convalescent hospitals in the region, 36 beds at the Angas Convalescent Home in Cudham, 170 in Bexhill (98 of which have been closed for convalescence during 1972) and 70 at David Salomon's House, Tunbridge Wells (closed during 1972)(1). Around one quarter of the hospital referred patients are referred from each of the North West and the South West Metropolitan regions. The former is characterised by a large number of referring hospitals, partly because of the larger number of teaching hospitals in the region. It has two convalescent hospitals: Danewood with 50 beds in Bletchley, and Joyce Grove with 34 which is part of the St. Mary's Hospital Group but situated in Oxfordshire. The South West Metropolitan Region is characterised by a small number of referring hospitals, two of which send relatively large numbers of patients each. This region contains one convalescent hospital, the Zachary Merton Annexe with 50 beds in Banstead, Surrey, which is part of the London group, itself in the North East Metropolitan area. The North East Metropolitan region, by contrast, includes a smaller number of referring hospitals each sending a smaller number of patients. This is produced, in particular, by the low number of gynaecology and miscellaneous patients from the region. This in turn may be explained by the referral of patients requiring convalescence at the coast to the Middlesex Hospital Convalescent Home in Clacton with 62 beds or to the Princess Louise Convalescent Home in Nazeing with 82. A few patients are referred from hospitals in the Oxford R.H.B. area, nearly all being from towns close to London.

54% of patients from hospitals in the S.E. Met region and 95% from the other Met. regions are from hospitals in Greater London. These are slightly higher proportions than of those living in London. It is impossible to be certain about the reasons for the overall concentration. One possibility is that patients are referred from hospitals where the pressure on beds is greatest, which just happens to produce this division. Another is that there are alternative rehabilitation, convalescent or pre-convalescent beds available. This is true for some of the non-psychiatric H.M.Cs. outside London, sending no or a very small number

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(1) This and subsequent data about other convalescent and rehabilitation hospitals is drawn from the Hospitals Year Book 1972.

(less than one per month) of patients to Princess Mary's. In the N.W. Met. region two of the three such H.M.Cs. have such beds. All seven general H.M.Cs. outside London in the N.E. Met. region refer no or few patients, and all may make use of convalescent facilities in Essex. Similarly two of the three low referring H.M.Cs. outside London in the S.E. Met. region may use Bexhill, but there are six H.M.Cs. in the S.W. Met. region which are not close to such facilities. A third possible explanation for the difference between referrals from London and elsewhere may relate to the actual needs of the patients. These might be caused by the medical conditions or the immediate social environment encountered, or, as some patients report, be for country or sea air. This last is, however, inconsistent with the number of patients from East Kent itself. However far these factors are important, either singly or in combination, it still seems probable that the concentration of referrals from London hospitals is in part the result of the continuation of traditions based on assumptions about convalescence that are no longer valid.

The distribution of the 302 patients referred from hospitals in the S.E. Met. region outside London also is uneven and difficult to explain. There is a local component, 67 patients coming from the Isle of Thanet group and 64 from the neighbouring Kent and Canterbury. There are somewhat smaller numbers from the Dartford and Darenth, and the Medway and Gravesend groups, and even fewer from the remaining six H.M.Cs. The numbers of patients from these hospitals (and from those in other regions) is shown in Table 22. The explanation for this distribution may depend partly on the existence of alternative provision; there are 72 convalescent beds at Bexhill and 36 at Cudham, but this does not relate to rehabilitation. The local and London contributions are important, and the referrals from North Kent may be related to ease of communication with Margate.

We turn now from regional and sub-regional patterns of referral to individual hospitals. On the whole, the picture is one of an even distribution of patients within the main geographical limits described. 130 hospitals in 66 hospital groups send patients to Princess Mary's, and the largest proportion sent by any one hospital is 6% of the total. Nevertheless, there are variations in the numbers of patients referred, that indicate differences of policy in the use of Princess Mary's. These exist between hospitals and between specialties. It appears to be the individual consultants in the acute hospitals who make decisions about the type of patient to use Princess Mary's.

Some hospitals stand out in Table 22 as being the major users of Princess Mary's. This is mainly due to the number of gynaecology patients they refer. They are a mixture of teaching and non-teaching hospitals in each of the metropolitan regions. The number of patients referred, while being conspicuous from Princess Mary's point of view, is, in the context of the referring hospital, very small. St. Helier's, Carshalton, refer the largest number; the 103 patients are just under three and a half per week and between one and two per cent of St. Helier's total discharges. Three more hospitals, St. George's Hyde Park Corner, Greenwich, and Hillingdon refer more than 60 patients, i.e. between two and three per week. A further ten, Edgware General, Mount Vernon, King Edward Memorial Ealing, Whittington, Highlands, St. Nicholas Plumstead, Kent and Canterbury, Isle of Thanet Margate Wing, St. Stephen's Chelsea, and Westminster, refer 30 or more patients, i.e. between one and two per week.

In contrast to these,certain other hospitals are low referrers of patients to Princess Mary's. Using the hospital group as the identifying unit, and excluding both exclusively psychiatric and specialist post-graduate teaching groups, 16 refer no patients at all. 12 of these are outside London. Those in London have distinguishing characteristics; Northwick Park is new and small, the Royal London Homeopathic is small, and the Seamen's and St. Mary's Paddington, both have convalescent beds in the group. Other easily identified large hospitals not referring patients are Bethnal Green and St. Andrew's E.3, though other hospitals in their groups do so. There is no apparent explanation for these two. Twelve hospital groups of the same kind refer between one and six patients, a rate of less than one per month. Eight of these are outside London; one is the South East Kent H.M.C., referring five patients, for which low total no explanation can be given. Of the remaining four, two, Staines and, before amalgamation, Battersea, are small, and two, the Middlesex and the London have convalescent beds in the group. The Hammersmith is conspicuous as a large individual hospital referring few patients and having its own recovery home.

The major patterns among individual hospitals seem, therefore, to draw attention to two influences on referral. The first is geographical. Most of the large acute hospitals in London, a few of those close to London, and the majority in the South East Metropolitan R.H.B. area tend to be regular users of Princess Mary's. The second is the availability of alternative facilities. The seven hospital groups in the Metropolitan

Boards' areas, that contain separate convalescent hospitals, are all relatively low referrers of patients to Princess Mary's. Of these, the Tottenham group send the most - nine patients. This suggests that Princess Mary's does act as an alternative to other convalescent hospitals. The relationship with other separate rehabilitation centres is more difficult to understand. No patients are referred from the Colchester group in Essex with Passmore Edwards House, five from the West Herts group with Garston Manor, thirteen from the Windsor group with Farnham Park Rehabilitation Centre, and 84 from St. George's with the Wolfson Medical Rehabilitation Centre. These four units may or may not, therefore, provide services that are a substitute to Princess Mary's. In these cases, as well as in those where there are no immediately apparent alternatives, there are considerable variations in the frequency of referral between the regular users, which can best be approached by considering the individual treatment groups.

Of the 40 patients in the cerebrovascular accident group, 13 (one third) are from hospitals in the Isle of Thanet Group. In so far as these patients are the most heavily disabled and present the greatest rehabilitation problems, a considerable proportion of Princess Mary's rehabilitation effort is directed towards meeting purely local needs. The remaining 27 patients are referred from a variety of hospitals in the metropolitan regions, no hospital referring more than two. Two patients have come from further afield, one from Kettering and one from Birmingham.

The 221 patients suffering from diseases of the bones or organs of movement are referred from all four metropolitan regions, but there are more differences between the hospitals than the regions. One hospital, Highlands, in the Enfield group, is a conspicuously high referrer with 32 patients. Others sending two or more per month are University College Hospital (14 in all), Princess Alice Memorial Eastbourne (14), Farnborough (19), and St. Stephen's Chelsea (20). These may be contrasted with the equally varied selection of hospitals sending one or no patients in this category. The local role of Princess Mary's for these patients is relatively under-developed. Only three patients are referred from the Kent and Canterbury group, ten from the Isle of Thanet and none from South East Kent.

No hospitals are conspicuously high referrers of the trauma patients. 36 hospitals from each of the metropolitan regions each send between one and seven patients. With the exception of Princess Alice, each of those mentioned in the last paragraph also refers several trauma patients.

As might be expected, very few hospitals refer cardiac surgery cases, eight being responsible for the fifty-two patients. The main users are Harefield (16 referrals) and Guy's (13).

A relatively large number of hospitals, 39, refer colostomy and ileostomy patients. They are widely distributed, and none is a distinctively high user.

66 hospitals send the 691 gynaecology patients. These are distributed among all the Metropolitan regions, the North West Met. sending 212, the North East 49, the South East 244 and the South West 164. The low number from the North East may be due to differences in regional policy, or to the use of convalescent facilities on the Essex coast. It would seem improbable that it is caused by reduced need. No teaching hospital is a large referrer of gynaecology patients. In addition to the convalescent hospitals already noted, Queen Charlotte's and the Chelsea have their own at St. Leonard's. The outstandingly large referrer is St. Helier's, Carshalton, sending 73 patients. Five other hospitals refer one or more patient per week. They are Hillingdon (with a total of 50), Kent and Canterbury (48), Greenwich (46), St. Nicholas Plumstead (45), Mount Vernon (38). A further seven hospitals refer one or more per fortnight, and a large number less.

In an attempt to explain the different number of patients referred from each hospital, the hypothesis, that the number of referrals is directly related to the total number of discharges from the hospital, has been tested. If this hypothesis is correct, it would suggest that there is probably a degree of agreement among referrers about the kind of patient to go to Princess Mary's, with regard to the extent of their recovery or needs for rehabilitation. This would depend upon two assumptions. The first is that the needs of these patients are evenly distributed among the referring hospitals. The second is that any variation discovered among the referring hospitals is not explained entirely by the two convalescent hospitals in the metropolitan regions that are part of R.H.B. groups in London and the five that are not.

Pearson's correlation co-efficient, for the number of gynaecology deaths and discharges from each hospital as recorded in form S.H.3 for 1971[1] and the number of gynaecology patients admitted to Princess Mary's from each hospital between January and July 1972, has been computed. Only hospitals in London were chosen, to discount the fact that many of those outside refer no patients. Teaching hospitals are excluded because of incomplete responses, but those for whom data has been received show a less close relationship than do R.H.B. hospitals. For the 70 R.H.B. hospitals in London with gynaecology discharges the co-efficient has a value of .49. The variations in the number of discharges from referring hospitals thus accounts for about one quarter of the variation in the number of referrals to Princess Mary's. Even allowing for some effect caused by the other convalescent hospitals, it is reasonable to conclude that there are real differences in hospitals' referral policies of gynaecology patients. It is also reasonable to assume that this affects the type of patient referred, and perhaps that the same conclusion is true also for other groups of patients.

The 425 patients in the miscellaneous group are referred from 86 hospitals, an average of only 5 per hospital. St. George's Hyde Park Corner (34) and St. Helier's Carshalton (26) refer the largest number, about one per week each; the same number are admitted from all the hospitals in the Isle of Thanet group (whereas they send only three gynaecology patients for rehabilitation), another aspect of Princess Mary's local function. The remaining cases are distributed widely among the metropolitan regions.

This section may be concluded by re-emphasising three points. The first is that, in general, small numbers of patients are admitted to Princess Mary's from a large number of hospitals in and around London and in Kent and East Sussex. Among these hospitals, the availability of other convalescent facilities seems to reduce the use made of Princess Mary's. An issue to be faced is the extent to which travelling and possible difficulties of co-ordination with other services affects the value of Princess Mary's. Second, there are considerable differences between hospitals in the number of patients referred to Princess Mary's. These

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(1) Private communications from Metropolitan Regional Hospital Boards.

may be presumed to reflect real differences in the use made of Princess Mary's, as do the variations between diagnostic groups referred. Variations between diagnostic groups may be further illustrated by the cases of University College Hospital and Highlands, which refer mainly diseases of the bones and trauma patients, by St. Helier's, Greenwich, and Hillingdon, which refer mainly the gynaecology and miscellaneous groups, and by St. Stephen's Chelsea, which refers all kinds of patients. On both of these points there appears to be scope for the rationalisation of policy, by the introduction of consistent selection and referral of patients whose needs may best be met by Princess Mary's. The third point is that the variations between specialties indicate that it is probably the individual consultants in acute hospitals who know about Princess Mary's and also make decisions, whether as general policy or for individual cases, that result in referral there. It is inevitable, therefore, that any changes in the services provided at Princess Mary's would directly affect these consultants and their patients.

Referrer to Princess Mary's

Patients referred from other hospitals were asked in interview who sent them to Princess Mary's. The question is not precise. Many activities are involved in the referral process: giving advice, making requests, taking decisions, making arrangements and providing information. We have not distinguished between these, and, even if we had, it is most improbable that patients would have been able to give accurate answers. Investigation of this area needs to be carried out among both staff and patients.

Consequently, we have no validated information about who does what in the referring hospital. Junior hospital medical staff appear always to complete the Application for Convalescent Treatment Form. In interviews, about half the patients report the social worker or "welfare lady" send them, a third a doctor, and a tenth a nurse. These results, however, probably do no more than indicate the main persons involved in the process, and certainly say nothing about the policy, knowledge or personal contact that may determine referral to Princess Mary's.

Length of Stay

Hospital referred patients were asked how long they had been in hospital immediately before their admission to Princess Mary's. For

those who have been in more than one hospital the lengths of stay in each were recorded separately and the longest stay has been analysed here. The results show that a higher proportion of patients who are admitted to Princess Mary's, than of all patients discharged from hospital, have had a long stay in hospital. 13% of Princess Mary's patients (a total of 26) and 5% of all patients have stayed between one and two months, and 9% of Princess Mary's (a total of 17) and 3% of all patients for two or more months[1]. Although this is a very crude comparison, there being no standardisation for age, diagnosis or region, the impression is strengthened when the length of stay in all hospitals consecutive with the Princess Mary's admission is considered. This adds another nine patients who have stayed between one and two months and another three for two or more. Six of the 11 trauma patients are among the 20 who have stayed for two or more months, as are smaller proportions of each of the other treatment groups. It may be, therefore, that particularly among these patients slowness of recovery is one feature indicating referral to Princess Mary's.

Other Hospitals

Patients were asked about all hospitals at which they had been in-patients before admission to Princess Mary's. The main analysis, from the record cards, of the hospitals from which they were referred, has already been discussed. Results are presented now, from interviews, about spells in other hospitals consecutive with that in the referring hospital.

12 hospitals referred patients report being in another hospital immediately before that from which they were referred to Princess Mary's. Three of these seem to have been deliberate pre-operative measures at Harefield hospital (two of them before cardiac surgery). Four are patients who have been in three or more hospitals, for totals of between four and fourteen months, and who have chronic diseases, such as T.B. of the hip, or more than one diagnosis, C.V.A. and fractured femur for example. The reasons for the other five patients being in this class are not clear.

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(1) D.H.S.S. (1972e). Report on H.I.P.E. 1970, Part 1, Table 7.

Nine patients report admission to another hospital since being in that from which they were referred. Again, four of these are from Harefield, (three cardiac surgery cases). Seven, as may be the case with the unexplained cases in the previous paragraph, seem to have been transferred to subsiduary hospitals during their recovery. If these transfers take place because of pressure on beds in acute hospitals, it is possible that the period is one in which the rehabilitative process is unnecessarily delayed.

90% of the hospital referred patients, however, have been admitted only to a single previous hospital on this occasion. A further point that arose during field work, but about which data has not been collected systematically, is that a number of patients have been at home for a few days before admission to Princess Mary's. The most usual time is probably one or two days, but it extends in a few cases up to a week. Perhaps one quarter of the gynaecology and miscellaneous patient groups are involved. Such patients might be thought to need referral to Princess Mary's, either for rehabilitation or because of lack of support at home, less than the others.

Patients' Reported Needs for Admission to Princess Mary's

After inquiries about the nature of the illness and the treatment already received for it, patients were asked for their opinions about the reasons and needs for their admission to Princess Mary's. The order of these questions is important, as the answers will probably have been affected by their context in the interview. Thus patients, having just given their diagnosis, would not repeat it as a justification for admission. On the other hand, not having yet been questioned in detail about their functional capacity or social circumstances, they might be less ready to mention these than to speak, for example, in terms of their general medical condition or what they had been previously told at their referring hospital.

Patients were asked why they were admitted to Princess Mary's rather than to any other hospital. The emphasis in this question lies on the alternative hospital, rather than on why any kind of treatment is necessary at this stage of their illness.

Postoperative patients answer mainly in terms of the need for beds in Margate Hospital, and the G.P. referrals in terms of the fact of the location of the consultant's beds at Princess Mary's.

46% of the hospital referred patients say that it was the hospital's decision that they should come to Princess Mary's, or that they had no choice. 12% say that Princess Mary's was the first place to offer a vacancy, which was then accepted for them. This does not necessarily mean that these patients failed to be admitted elsewhere; it is reasonable to assume it was in many cases the first place to which an application was sent. As these few "first vacancy" patients are all in the colostomy, gynaecology, or miscellaneous groups, the alternatives considered for them are probably convalescent homes or hospitals.

15% say they themselves chose to come to Princess Mary's. The choice mainly depends on a good report or experience of the hospital, or on whether the patient preferred to go to the sea or into the country - again an expression of convalescence. A very few patients, 5% or less in each case, give the reason as the hospital being suitable for their particular condition (this includes five colostomy or ileostomy patients), for rehabilitation or active treatment (all C.V.A., diseases of the bones or trauma patients), for convalescence or rest, or for other purposes.

The final 12% say they do not know why they were admitted to Princess Mary's rather than to any other hospital. This confirms the impression that the large majority of patients (i.e. the hospital decisions, the first vacancies and the don't knows, who make 70% of the total) have very little active involvement in the choice of hospitals, and that about half simply follow instructions.

Patients were then asked whether, in their opinion, they needed to come to Princess Mary's. The answers of the postoperative patients are not included, the question being inappropriately applied to routine transfers. The answers of the other two admission groups fall into one of three classes: no, don't know, or yes.

One G.P. referral and fourteen (7%) of the hospital referrals say they did not need to come to Princess Mary's. Another six (3%) hospital referrals say they do not know whether they needed to come. These patients are not concentrated in any one diagnostic group.

The 90% replying that they did need to come were then asked why they thought this. The question produced a wide variety of answers, among which it is sometimes difficult to make completely clear distinctions. Many of the answers are less precise than others. 12, in which mention of general weakness or illness for example, or of a need to gain strength or get better, is combined with other more precise reasons, have been included under the latter. These difficulties mean that the analysis is not always completely clear cut; it serves best to give an impression of the kind of expectations patients have, and the uses they make of Princess Mary's. It demonstrates that, although they may not be involved in the decision to be admitted, they have definite opinions about the hospital.

Four of the G.P. referrals say they needed to be admitted because of difficulty in undertaking activities such as standing or walking, or because of a need to return to activity. Three refer in general terms to their illness or to the need to get better, and four each give a different reason.

Among the hospital referrals, the most common reason for needing to come is connected simply with the patient's general physical condition. 23 patients (12%) report needing admission because they are weak, ill, tired or in pain. Another 15 (8%) mention these conditions, and say that they result in them being unable to go home or return to normal life immediately. The corollary of patients' generally unsatisfactory condition is some kind of general treatment aimed at improving it. 14 patients (7%) give this kind of reason; they need to come because it does them good, makes them better, builds them up, or increases their strength. 52 patients, therefore, just over one quarter of the total, give reasons of the most general nature as to why they need to come to Princess Mary's. Their replies indicate they see Princess Mary's as only a stage on the path from hospitalisation for an acute illness to being fully recovered at home.

Many of the remaining patients are more precise about their problem, the treatment that will solve it, or the end result at which they are aiming. 19 (10%) report some particular circumstance at home which means they need to come to Princess Mary's. Nine of these say they are living on their own; and that they could not, therefore, look after themselves, or that they need building up. This is only a small proportion (one seventh) of those actually living alone, and indicates an absolute minimum

number for whom this fact is an influence contributing to the reasons for admission. Three of the 19 report the illness of a member of their family as affecting their need to come. Again, more patients (eight) mentioned this circumstance at some other stage of the interview. Although it is impossible to be certain, these two results suggest that a single question about the reasons for a complicated event, in which the interviewee has not been the major decision-maker, is not a satisfactory means of obtaining answers. This is more plausible when, as here, a variety of answers, that are not mutually exclusive, may be accepted. The remaining seven, of the nineteen who mention their home circumstances, give varying amounts of different detail. One simply reports needing to be away from a domestic problem, and another reports the specific problem, a drunken husband, and says she needs treatment to make her better.

18 patients (9%), all but two of whom are women, report they need to come in order to avoid doing things - usually housework - that they would have started doing too soon if they had gone straight home from hospital. Six of these add that they need a rest, three that they feel ill, and three that they have more complicated circumstances, such as an elderly mother to be looked after.

A consequence of being tired, or of the need to avoid doing things, is the need for a rest. 18 patients (9%) report this as their main reason for needing admission. Three of them combine it with a change of environment, e.g. getting away from it all out of London.

18 patients (9%) say they need to come to Princess Mary's because of difficulties in doing things. They are unable to stand, walk, or look after themselves, for example, perhaps because they are tired, weak, or sore. About half place the difficulty in a particular context; they are not fit enough to look after themselves at home, or to start work yet. It may only be a chance choice of phrase that distinguishes these patients from those who say they cannot go home yet because of their illness. The distinction lies in the fact that the former report a difficulty in an actual activity. It indicates the possible importance of functional ability as a determinant of who receives hospital care, and suggests what one of the aims of that care should be.

Five patients (3%) give depression as a reason for needing to be admitted to Princess Mary's. Three of them, however, also refer to the need to improve their physical condition.

12 patients (6%) see their need as being for convalescence. Included are three mentioning some aspect of nursing care (dressings or drugs) as being important and preventing them going home. Similar to the convalescents are seven patients (4%) who report a need for a change of environment, not because of any particular deficit or difficulty in their usual one, but because of the advantages of being away. Five of them specifically mention the air at Margate as helping to build them up.

Four patients (2%) (three colostomies and one laryngectomy) report they need to learn to manage their new condition, as opposed to receiving nursing care for it.

The remaining 22 patients (11%) see their need in coming to Princess Mary's as being for rehabilitation. Eleven report a need for physio- or hydro-therapy or for exercises of some kind, perhaps to get them going again. Two combine the need for therapy with that for a rest or a holiday, and three with that to be away from their home. The other six report they need to return to a state of activity, without mentioning therapy as a means to this end. Some refer to a particular part of their body, e.g. a hip, and others use more general terms, e.g. to get going again. The latter are clearly not far removed in their perception of their needs from those who report the need to regain their strength. This points to the great difficulty of distinguishing between needs for rehabilitation and for other services, and, therefore, to the practical difficulties that must be involved in allocating any one patient to an appropriate service.

Analysis of the need for admission to Princess Mary's within each diagnostic group shows some distinctions between rehabilitation and convalescence, but does not allow us to allocate all of one group into either class with absolute certainty. Those most clearly identifying themselves as rehabilitation patients are the cerebrovascular accident and diseases of the bones patients. Three out of four and eleven out of eighteen, respectively, report a need for therapy or for reactivation of function. Another five report they would have had difficulty managing at home, or the need for a general improvement in their physical condition.

The other groups, identified as distinctive in Princess Mary's work, report less rehabilitation orientated reasons for admission. Five of the 11 trauma patients require general improvement and three therapy of some kind. The cardiac surgery cases report a variety of needs. As mentioned, three of the colostomy and ileostomy patients say they are learning to

manage their situation. Five of the 18, however, refer only to building up their strength or improving their health. They, with the remaining 11, do not see Princess Mary's primarily in terms of their particular condition, but, as do the trauma and cardiac patients, as offering a mixture of rehabilitative and other facilities for the improvement of their health.

Among the gynaecology and miscellaneous patients there is an even greater emphasis on general aspects of improving health and on convalescence. Of the 81 gynaecology cases 25 report a need to get better, or that their illness means they cannot manage at home. 11, with children, say they have come to Princess Mary's to avoid doing things such as housework at home that they know they were advised not to do, but would do if they were there. Another 9 report a need for a rest, and six for convalescence or a change of environment, e.g. sea air. Thus, one third of these patients expect Princess Mary's to offer them passive experiences. Seven report a particular difficulty in their home environment. Only 12 say they need to come, because of things they could not manage to do at home. This contrasts strongly with the fact that half the gynaecology patients, when subsequently questioned about individual household activities (c.f. page 55), also report that they would have difficulty with three or more out of the eight activities, if they were at home now. Only two gynaecology and two miscellaneous patients report a need for rehabilitation. The miscellaneous group as a whole report a variety of reasons for admission; 12 have a need for general improvement in their health, nine would have difficulty in doing various things for themselves, six require a period of convalescence and the others cover most of the other responses.

Finally in this series of questions, patients were asked if they would be better off elsewhere, where they would get more suitable treatment than at Princess Mary's. Three postoperative patients say they would be better off in Margate Hospital and three at home. The G.P. referrals are all content to be where they are. Three hospital referrals feel they should be in another (acute) hospital, and eight elsewhere, either in their own homes or a convalescent home. No other relationship has been observed among these eight patients. To some extent the replies may be a statement of unelucidated discontent, but they may also be indicative of unnecessary admissions.

The main conclusions of this section for the hospital referred patients are first that, despite not being much involved in the

decision to be admitted to Princess Mary's, the large majority of patients are not actively discontented with that decision; and second, that the patients' perceptions of the reasons for their admission, reflect a variety of circumstances, both medical and social, that give rise to a variety of needs, ranging from a fortnight's rest at the seaside, through a planned course of exercises to assist recovery while preventing strain or difficulties at home, to intensive therapy for potentially disabling conditions. It is most improbable, however, that staff's views of the patients' needs would coincide with the patients'. Nor does the patients' contentment necessarily mean that current solutions to problems and ways of meeting needs are the most effective that could be found.

Condition on Admission

Patients' general condition on admission to Princess Mary's is noted on their record card by the doctor who sees them on admission. The doctor has the choice of selecting one of "good, fair, poor, bad". The standards used to reach a decision on this point and the exact meaning of the phrase have not been investigated. Patients not examined on admission do not have their condition recorded. These include a considerable proportion of the gynaecology cases. As they are the less seriously ill, the 251 gynaecology patients whose condition has not been recorded, have been analysed as being in good condition.

Table 23 shows that 1,747 patients (91%) are in good general condition on admission, 135 (7%) are fair, none are poor, 1 is bad, and that 29 (2%) (other than the gynaecology patients just referred to) are not recorded. Table 24 shows the proportion of each patient group recorded as being "fair" or worse. This varies from 20% of G.P. referrals to 3% of gynaecology cases.

Incapacity

This section examines a main area of interest of a medical rehabilitation unit, the functional difficulties experienced by patients, that are caused by their clinical condition. Questions were asked in interviews to identify problem areas of patients' activities. The intention in considering functional capacity is threefold: to explain admission to Princess Mary's; to work towards a measure of the need for medical rehabilitation among the patients; and to indicate some of the nursing problems

encountered in the hospital. While conclusions of considerable interest about the role of Princess Mary's do emerge, this intention has not been completely fulfilled. This is partly because of a lack of refinement in the questions asked; the fact that a patient reports difficulty with a particular activity does not, of itself, permit a description of the medical rehabilitation services needed, that is an adequate prescription of those services. It is also because of the decision not to stratify the sample of patients into heavily disabled and lightly incapacitated groups. Had this been done, greater precision would have been possible in describing the needs of the permanently disabled patients, by analysing them separately from those who are temporarily incapacitated, but who would soon be much recovered, as their strength returned postoperatively, having received "fresh air, good food and rest of mind and body"(1), but no active rehabilitative treatment. The third limitation is in the analysis, which has not examined closely the relationships between the different measures of incapacity used, nor those between the replies to questions about individual activities that make up the measures (see below, pages 50 and 55). We are able, therefore, to indicate reasons why patients could not have gone home after acute hospital treatment. We cannot demonstrate in detail what rehabilitation facilities are needed, but only, by consideration of the diagnoses and types of incapacity together, suggest where the problems lie. But first we report on some preliminary problems experienced by patients.

At the beginning of the interviews patients were asked whether they had any difficulty with their sight, that was not corrected by the use of satisfactory spectacles. 24 patients (11%) report such difficulty, without being blind. These are evenly distributed between the admission groups. Among the hospital referred patients, they include both men and women, and each of the diagnostic groups except for diseases of the bones. Later in the interviews, all patients were asked whether they experienced difficulty reading. Another four patients report difficulty, without having previously disclosed a problem with their sight.

23 patients (10% of the total) report having a problem with their hearing. 18 of these simply report some difficulty, without apparently using an aid or finding the situation seriously disabling. The others report use of an aid, or a greater degree of difficulty. These patients are spread among most patient groups, but again include a high proportion of the trauma cases, five of the 11.

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(1)Goodman Report, para. 18.

35 patients (15%) report a current urinary problem. These consist of five postoperative patients, one G.P. referral and 29 hospital referrals. The last include five of the 18 colostomy or ileostomy patients, and 15 of the 81 gynaecology patients. The most common problem reported is frequency or urgency of micturition, present in 13 cases. Another seven patients report an infection, or pain on passing urine.

A smaller number of patients report a current problem with defaecation. Five have diarrhoea and three (colostomy cases) are incontinent. Another three report pain on movement and one a spastic colon. 23 report constipation and seven a problem whose nature is unclear. All but four of these patients have undergone abdominal surgery.

The central problem of patients' incapacity was approached in five different ways in interview, with different degrees of success. The first approach was the most direct. After establishment of the fact that the patients could hear and see well enough for the interviews to be carried out, they were asked whether they had any disabilities, and, if so, what they were prevented from doing. The largest single group of positive replies consists of either the current diagnosis, e.g. 'arthritis', or 'stroke', or the result of the operation, e.g. 'amputated leg', or 'colostomy'. Other patients give second diagnoses, usually of chronic illness, which may or may not be currently active, e.g. 'arthritis' or 'bronchitis'. In only four cases is there manifestly a major disability existing prior to the condition recorded in the diagnosis. One is a woman with a stroke and a subsequently broken hip, another with poliomyelitis resulting in a paralysed leg who has had a valve replacement for mitral stenosis, the third with ulcerative colitis, thyrotoxicosis and rheumatoid arthritis resulting in several adaptations to her home, and the fourth a man with an amputated leg, and a recent abdominal operation. There are few positive answers to the question as to what activities the disability prohibited, and many of them are so vague as to be unanalysable, e.g. one woman who reports she has undertaken very little activity since September 1970. Similarly, the requirement that interviewers should record patients' disabilities from questions to the nursing staff or the case notes has produced no worthwhile data, because the information would only exist in the cases of clearly defined and severe disability.

After being asked about disabilities, patients were asked whether they used any aids, appliances, or equipment to help them in their normal daily

living. The context and phrasing of the question seem to have led to it being interpreted as referring to those usually used, and not temporary ones to be discarded on recovery from the present illness. 18 patients (8%) report using some kind of aid or equipment. The large majority (13) use only walking sticks. Five of these are in the diseases of the bones group, and five the trauma, towards which groups much of the hospital's rehabilitative effort is directed.

The third approach to incapacity was more exact than the first but less certain than the second. While being asked about their accommodation, patients were also asked two questions about their ability to manage in it. 16 patients (including two G.P. referrals) report problems in the use of their lavatory, apart from the actual processes of defaecation and urination. 13 of these are problems of access, in the use of stairs; four are diseases of the bones patients, two cardiac surgery, two gynaecology and three miscellaneous. This raises two issues of validity. First, the absence of C.V.A. and trauma patients indicates the problems are reported, as intended from the context, as existing while the patient was living at home. Thus disabling illnesses, of sudden onset, and current incapacity are excluded. Second, while a number of other patients, especially gynaecology cases, who say their problems should have been solved by the treatment they have received, have been excluded from the analysis, the likelihood is that not all, who will in fact be better when they return home, said so. The same considerations are true for the very small number of patients (six) being unable to use one or more of the rooms in their home because of their illness.

The main technique used in the interviews to measure patients' functional capacity and to delineate their problems was a check list of activities. Patients were asked if they had difficulty in doing those activities at the time of interview. It is, therefore, a measure of current incapacity, and not, as are the aids and accommodation questions just discussed, an indicator of previous disability. The question about reading has already been analysed in connection with sight, and is not discussed further here. The activities about which patients were asked were based on the questions and tests used in the 1968-9 survey of the handicapped and impaired in Great Britain[1]. They are as follows:

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(1) Office of Population Censuses and Surveys (1971a), pages 279-82.

going out of doors; going up and down stairs; getting about the ward; getting in or out of bed; washing or bathing themselves; dressing and putting on shoes; doing up buttons and zips; cutting their toenails; brushing and combing their hair; (men only) shaving; feeding themselves; standing up; walking without aid. There are twelve activities in which women might have difficulty, and thirteen in which men might. They do not, on the whole, demand great expenditure of energy in their performance, but they do cover a wide range of different physical movements and are largely essential for day to day self-care. Patients reporting difficulties in a large number of these activities, therefore, may be considered severely incapacitated; even so, it must be noted that the fact that people find an activity difficult does not mean that they find it impossible. It is when a high degree of incapacity is likely to prove to be a more long-lasting disability that patients are in need of extensive nursing care and rehabilitative treatment. Conversely, however, the lightness of the activities considered means that a person who reports a very small number of difficulties is not necessarily completely fit.

Interviews were held with 226 patients, of whom 195 were referred from other hospitals to Princess Mary's. This question, about the activities patients currently find difficult, and the subsequent one, about tasks they would find difficult if they were at home now, were incorrectly administered by one interviewer to 21 hospital referred patients, of whom 17 are in the gynaecology and four the miscellaneous patient groups. These patients were asked whether they usually have difficulty in the activities; they are, therefore, excluded from the analysis of these two questions. The totals with which we are working for these questions is now 64 gynaecology patients and 51 miscellaneous ones, 174 hospital referrals, and 205 discharges of all kinds.

Patients were interviewed by research staff as soon as could be arranged after their admission to Princess Mary's, in order to assess the problems presented to the hospital. As data was not collected about the length of time since the onset of illness or the operation undergone, it is impossible to comment on the overall rate of recovery. It is important to know, however, whether the degree of incapacity reported is a simple function of the length of time for recovery and treatment.

Table 25 suggests that there may be some degree of improvement in functional capacity with time, but that this is not of such a nature that

the length of time between admission and interview can explain the range of incapacity reported. Thus, of the hospital referrals, the 124 patients interviewed between one and three days after admission report difficulty in an average of 2.56 activities each, while the 50 interviewed at four or more days report 0.68 each. That this is not a universally straightforward relationship is shown by the facts that 31 of the patients interviewed on the first day after admission report no difficulties at all, and that the 11 interviewed one week or more after admission report difficulty in an average of 1.68 activities each. Table 26, concerned only with gynaecology patients, shows that the relationship in Table 25 is not simply caused by a bias resulting from the interviewing of different treatment groups at different times.

Two conclusions may be drawn from Table 25. The first is that, although incapacity declines with time since admission, this does not disturb the main findings of the low degree of incapacity reported. This is reinforced by the fact that two thirds of the patients were, in any case, interviewed in the first two days after admission. The second is that the time, at which the number of difficulties reported drops, is very shortly after admission, three days for all hospital referred patients. This phenomenon is even more marked among gynaecology patients, as shown in Table 26. The 28 interviewed on the first day after admission report difficulty in an average of 1.07 activities each, the 36 interviewed subsequently report it in 0.25 each. The speed of recovery from incapacity among these patients makes it reasonable to suggest that a substantial proportion of that incapacity, low as it is,may be caused by the transfer to Princess Mary's, particularly when this is from London or further away. These findings could, however, only be confirmed with certainty by a prospective study of patients.

We may now turn to the main findings to emerge from the questions about activities that patients find difficult. As indicated,the most salient single fact is the low degree of functional incapacity that patients report. Table 27 shows that 90 of all patients (44%) report difficulty in none of the activities about which they were asked. A further 68 patients (33%) report difficulty in between one and three activities, and the remaining 47 (23%) in four or more. Each of the admission groups reflects a similar pattern. The fact that one or two postoperative patients score highly emphasises the fact that incapacity may be temporary and nursing care required. The G.P. referrals experience

a fairly high number of difficulties; the hospital referrals produce the main features of the distribution as noted. There is little difference between the numbers of activities found difficult by men and women, an insignificant degree of bias being introduced by the additional question for men, as only one reports difficulty in shaving.

Table 28 shows the degree of incapacity reported by each treatment group of the hospital referred patients. This table demonstrates that the greatest problems are to be found among the small number of cerebrovascular accident cases, among the diseases of the bones and among the trauma patients. These groups report difficulties with an average of 9.0, 4.6, and 5.5 activities, respectively; only three patients, with diseases of the bones, report none. The other groups report lower average numbers of difficulties, ranging from 0.6 among gynaecology patients to 2.3 among cardiac surgery cases. They have more patients with few difficulties or none, and only the very occasional one with more than four or five.

Further analyses of heavily and lightly incapacitated patients have been undertaken in an attempt to understand reasons for admissions to Princess Mary's. It was hypothesised that, if social factors do influence the need for admission to Princess Mary's, they would be highlighted by contrasting patients with high and low medical need. It was supposed that patients with a high degree of medical need (heavily incapacitated, reporting difficulty in seven or more activities) would report a low number of adverse social circumstances, and the lightly incapacitated, with no difficulties, would have more social problems. The evidence does not support this for the hospital referrals. Examination of marital status, household composition and household problems for the heavily and lightly incapacitated in each treatment group, shows that the former do not have more support and less problems at home than the others in their group, and that the latter do not have less support and more problems.

Turning now to consideration of which activities patients find difficult, Table 29 shows the number of patients in each admission group who say they find each activity difficult. The most commonly reported difficulties are in going up and down stairs and going out of doors. 40% and 33% of patients, respectively, report difficulties with these activities. Half this number of patients (15% and 20%) have difficulty in walking without an aid and in getting about the ward. Looking at the different treatment groups reporting these difficulties in mobility

(Table 30), two features may be seen to be present. The first is some physical impairment that actually interferes with the process of movement, as in the C.V.A., some of the diseases of the bones, and some of the trauma patients. The second is a less specific postoperative weakness, present in the other patients as well, that reduces the amount of energy they have for the more strenuous activities. This is the type of patient who needs "building up" while at Princess Mary's. The others need a more specific re-educative programme, learning to walk and move about in a variety of situations.

Patients were asked about four self-grooming activities. Only one is at all frequently reported to be difficult; cutting toenails by 30% of patients. This reflects hip problems to a considerable extent but is also present among a number of those with other conditions. Other grooming activities are much more rarely found difficult; washing by 9%, hair brushing and shaving by 1% or less each. This indicates with certainty that use and fine control of the arms and hands (i.e. upper limb disabilities) are not major problems among Princess Mary's patients.

This theme is continued in the other activities. 18% of patients report difficulty in dressing, largely among diseases of the bones and trauma patients among whom reaching the feet is the problem. 8% report difficulty with buttons and zips and only 4% with feeding.

The mixture of heavy and light incapacity and the emphasis on problems of mobility is continued in the different patient groups. The C.V.A. patients more consistently report activities to be difficult than do other groups. It is nevertheless perhaps surprising that only two say getting in and out of bed is difficult, and none brushing their hair; a degree of under-reporting may be present. The fact that five of the eighteen diseases of the bones patients report difficulty in getting about the ward and in getting in and out of bed indicates the minimum number among whom the re-educative process must start at the beginning. The others seem to have made considerable progress already. The major difficulty reported by cardiac surgery patients is, not surprisingly, in going up and down stairs. But, as three of these patients report difficulty in doing up buttons and zips (because of arm movements), but none in dressing, some doubt must be thrown again on the validity of the questionnaire technique. The gynaecology patients are the least incapacitated of those at Princess Mary's, one fifth being the most

reporting difficulty with any one activity. The miscellaneous group present a slightly different picture. Subdividing the group, for a moment, we find that 13 of the 21 patients with abdominal operations report difficulty in going up and down stairs, but that only one of the six who have had no operation reports any difficulties at all. In conclusion, despite a slight measure of uncertainty about the interview technique employed, it seems established that a considerable range of need is being met at Princess Mary's, and that this involves both general restrengthening and the rehabilitation of particular body functions, particularly walking.

In the final set of questions about incapacity, patients were asked whether, if they were at home now, they could perform various household tasks without difficulty. There were eight parts to the question. The tasks included: doing light housework like washing up, dusting, tidying; doing heavy cleaning like washing floors, cleaning windows; lifting a box of groceries from the floor; making a cup of tea; preparing a hot meal; collecting a pension, going to the bank or post office; shopping; heavy washing. If the patient would not normally do the task himself, he was to say so. The question serves as an indicator of the extent to which actual difficulties in doing things at home are reasons for admission to Princess Mary's. In this, it corresponds to those who say that the reason for their admission is that they cannot manage at home.

Several factors increase the difficulty of interpreting the replies. First, the fact that the question was hypothetical means that the answers rely on patients' assessments of tasks they have not tried. It may be that patients bring a set of expectations to events at home different from that brought to events in hospital. There may be an initial presumption that tasks at home would be difficult, because they have been judged not yet fit to return there. Second, this list of tasks is not strictly comparable with the self-care activities about which the patients were asked. A small number of patients (mostly men) do not do some of the tasks at all. Furthermore, these tasks are manifestly more strenuous than the self-care activities. This means we would expect patients to report more difficulties here than on the preceding scale, which implies care should be taken in interpreting the results produced by different scales of disability and that further testing of their validity is needed.

With these reservations in mind, conclusions about the degree of incapacity may be drawn. In general, the different groups of patients show the same pattern as before - among the hospital referred patients, the C.V.A., the diseases of the bones and the trauma patients are the more heavily incapacitated (Table 32). Among all the patients (Table 31), 11% say that doing anything more than making a cup of tea would be difficult (i.e. report seven or eight difficulties). 24% say that five or six of the tasks would be difficult. 56% report between one and four tasks difficult. A reasonable interpretation of this last group is that they would be able to look after themselves for a day or so at home on their own, but would not be able to look after themselves or their home for a longer period. 9% of all patients report that none of the tasks about which they were asked would be difficult. Prima facie, it would seem difficult to justify the presence of these patients at the very minimum at Princess Mary's on grounds of need for rehabilitation, but it must be remembered that other influences may be present as indicated by the fact that four of the 18 with no difficulties are in the colostomy and ileostomy group (Table 32). A simple interpretation of these results about tasks that would be found difficult if the patient were at home now might suggest that potential difficulty at home is a significant factor in admission to Princess Mary's.

This interpretation can, however, only be sustained if there is inadequate support at home that makes the difficulty of substantial importance. The precise issue of social support is difficult to disentangle. First it can be noted that there are a very small number of patients (four in all) who consistently report that they do not do four or more of the tasks for themselves. Lack of support can only be an explanatory feature for these patients, if that which has previously existed is now withdrawn. Second, those with no difficulties at all appear to have no need of support. Third, there is a group of patients, 101 of the hospital referrals, reporting between one and four difficulties, who seem capable of looking after themselves at home on a day to day basis, but not managing the major tasks of looking after the house or going out shopping. This is a level at which a spouse might be expected to be of considerable assistance. Nevertheless the fact that 61 of the 101 with this number of difficulties are married shows that even here Princess Mary's is not acting as a simple substitute for a spouse. This is confirmed by the finding that there is no consistent

relationship between the proportion of married people in each treatment group reporting between one and four difficulties and the proportion of married people in the group as a whole. The only possible exception to this is among the male miscellaneous patients, among whom nine of 19 with one to four difficulties are not married, and only one of the remaining seven is. For all these patients, who can look after themselves to some degree, the questions remain, however, whether the spouse of the 61 married ones could have coped, and whether some alternative provision might have been made for the 40 not married. Among the remaining third of the hospital referrals, reporting five or more tasks to be difficult, alternative support is more difficult to envisage. The major conclusion is, however, that a considerable proportion of the hospital referred patients in Princess Mary's, perhaps amounting to one half the total, have neither a degree of incapacity that indicates a severe rehabilitation problem, nor a degree of difficulty at home combined with a lack of support that makes continued hospitalisation essential.

ACTIVITY AT PRINCESS MARY'S

This final section of the results comments upon three remaining pieces of data. These were collected from the patients' record cards, because of their easy availability. They indicate further possible dimensions to the study of the role of Princess Mary's: what happens to the patients, in terms of services and treatments, while they are there; and what are the outcomes of these services for the patients. The main conclusions, however, rest upon the analysis of the kinds of patients being treated, and the material about length of stay, condition on discharge, and place of discharge remains additional.

Length of Stay at Princess Mary's

Table 33 shows the average length of stay of each of the patient groups in Princess Mary's, as calculated from the record cards. Postoperative patients stay, on average, one week. Three quarters stay between three and seven days, and the others for more. About one tenth stay for two weeks or longer. The G.P. referrals stay just over three weeks on average, but are very widely spread. 7 stay for one week or less, 60 from two weeks up to four weeks, and 8 for more than five weeks. The hospital referrals show a similar dispersion, but this is due to differences between the treatment groups, as shown in Tables 33 and 34. There are no major differences between men and women in each group.

C.V.A. patients stay on average for about four and a half weeks, but a quarter stay for exactly three weeks, and a fifth for seven weeks or more. A second clustering of patients, in the diseases of the bones, trauma and cardiac surgery groups also stay about three weeks. The trauma patients are fairly well dispersed around this time, but the diseases of the bones and cardiac surgery groups are much more clustered, with 59% and 77% of the patients respectively staying exactly three weeks. The other three groups centre around two weeks, the gynaecology patients being especially conspicuous for the very small number staying any longer.

In interviews, patients revealed themselves to be well informed about their prospective length of stay, the large majority reporting expectations that correspond to that experienced by other members of their group.

The average length of stay for each patient group can also be used to calculate the total number of patient days for that group. Tables 36 and 37

show the proportion of days for each admission group and each treatment group, respectively. The result of this calculation is that the groups with an above average length of stay, i.e. the G.P. referrals, C.V.A.s, Diseases of the Bones, and Trauma patients, constitute a higher proportion of the total patient days than they do of the total discharges. The information that is not available, however, is the proportion of the hospital staff's time that these rehabilitation-needing groups consume. This is important, because it would show the points at which the staff's efforts and skills are currently applied. It might thereby throw light on the low occupancy rate in the hospital (59%)[1], which, in turn, might be caused by an imbalance of resources in the form of too many beds for too few staff of an appropriate nature. Planning of the future of the hospital should be based upon a matching of the resources, both human and physical, with the kinds of patients to be treated.

Condition on Discharge

The condition of patients on their discharge from Princess Mary's is stated by medical staff on the record cards. The choice given on the cards is "Better, same, worse, own request, against advice". Again, the criteria on which the choice is based have not been examined. Table 35 shows the condition for the admission groups. The very large majority, over 90%, of patients are recorded as being in a better condition. A few are the same, less worse, and a few have either requested or taken their own discharge. These facts are true for each of the treatment groups of the hospital referred patients.

Place of Discharge

The addresses to which patients are discharged are noted on record cards, if different from the home ones. Although this may cause some under-recording of other addresses, 94% of patients, in Table 38, are discharged home. Although we have no information about non-residential services patients may expect to receive on discharge, this corresponds to the major impression received of Princess Mary's, that it is a stage on the path to recovery between acute hospital and return home. This is confirmed in the interviews, which also revealed that 5% of patients intend to stay with relations, corresponding with the other addresses in Table 38.

Table 39 compares the proportion of hospital referred patients in each treatment group, who are discharged to addresses other than their home,

(1) D.H.S.S.: Hospital Costing Returns 1971, p.30.

with the proportion recorded as being in the same or worse condition on discharge. The two distributions follow a roughly similar pattern; there is a low proportion of patients in the same or worse condition on discharge, and a somewhat higher one not going home. The comparison suggests that the fact that a person's condition has improved, is not necessarily evidence that it has improved enough for him to function satisfactorily at home yet. The proportions not going home also indicate that it is among the patients presenting the greatest rehabilitation problems, the cerebrovascular accidents and the trauma cases, that Princess Mary's has the greatest difficulty in achieving a successful rehabilitation and resettlement programme. But, even taking this into account, it should be remembered that at the very worst over three quarters of the patients in each group appear to have recovered satisfactorily.

DISCUSSION AND CONCLUSIONS

The particular aims of this study of the patients in Princess Mary's Hospital were described in the Introduction as being to investigate their social background and problems, to inquire into the problems related to handicap, and to relate these to the services provided. This concluding section draws together the most significant aspects of the social needs of patients. It collects into one place the evidence that might explain why patients are referred to Princess Mary's. It considers the services that seem to be indicated for patients, on consideration of their various needs and of the reasons for their present use of the hospital. Finally, it makes some suggestions that might be incorporated into policy for the future of Princess Mary's Hospital itself.

The study has used data, from patient record cards and from interviews with patients, to describe the patients currently treated and to explore the role of the hospital as a very large rehabilitation unit. Patients are drawn in relatively small numbers from the local general hospital postoperatively. The ward so used may be considered a pre-discharge annexe to the Margate Wing of the Isle of Thanet District Hospital. They include a smaller number referred from local general practitioners to the two consultant physicians in physical medicine and rheumatology. This is a normal consultant specialist service; a few additional beds being available for male patients in a neighbouring hospital. The large majority, however, are referred from other hospitals after receiving acute clinical treatment. This is the distinctive convalescent and rehabilitation role of Princess Mary's.

The last role of Princess Mary's can be elaborated. In the first place, it is concerned for the most part with a broad range of patients. This is general convalescence and general rehabilitation. Children and the psychiatrically ill are clearly not provided for in the hospital. A number of patients are old, but the problems that distinguish them from specifically geriatric patients and the special area of concern of geriatric rehabilitation are not at all clear. These issues might repay further investigation. The patients at Princess Mary's are predominantly middle aged or elderly, with a variety of diagnoses and conditions that are not among those considered by the Tunbridge Committee to require separate rehabilitation facilities. If policy-makers accept the Committee's reasoning, and if convalescence is in future to be provided

only when there are clear indications (about which we have no certain knowledge at present), then the burden of argument must be to establish that Princess Mary's patients need treatment provided by the health service, and that such treatment is most appropriately provided at Princess Mary's. In the absence of such argument, it could be concluded that the continued general role of the hospital as a separate centre is not justified.

Part of the issue to be considered, however, is whether Chapter 11 of the Tunbridge Report is adequate in its selection of the special groups of rehabilitation patients. The reasoning is not thoroughly explicit and consistent, and practicalities prevent the immediate closure of existing specialised rehabilitation centres. In the case of Princess Mary's patients, the issue to be argued in deciding policy is whether the nature and the status of the groups that have been identified and analysed in this report justify separate treatment. The main components of this argument are whether the difficulty of patients' problems, and the specialisation in the skills to solve them, are such that they cannot be tackled, or provided, on a widely distributed basis at a local level in the health service. This is in turn dependent upon the numbers of patients presenting with the problems, and the extent to which it is desired to promote research, development and training through specialisation.

This research study has not been designed to answer these questions about special groups of patients. Nevertheless, some of the most obvious points about the groups at Princess Mary's may be made. The first is that cerebrovascular accidents, osteo-arthritis of the hip, and fractures of the femur or femur neck are all common conditions to be found in every district hospital. There is nothing in the study findings to suggest that these cases are sent from hospitals that simply lack the facilities to deal with any patients of this type. Rather it seems likely that those referred are selected from along all patients with the same diagnoses at the acute hospital. (The distinguishing characteristics of those selected for referral, or for any rehabilitation for that matter, could only be established by a study contrasting those who are and those who are not so selected.) This suggests that on the whole, the skills for dealing with them are available at the acute hospital. If this is the case, other factors are important in determining referrals such as, it might be speculated, a slow recovery by the patient in a hospital where demand for resources is high. But whatever the explanation, it would seem important

that, if changes were to be proposed in the use of Princess Mary's or similar units, there should be adequate consultation with the present referrers, to ensure that changes do not result in needs failing to be met by the acute hospital.

The cardiac surgery and colostomy and ileostomy patients are different in having undergone more specialised procedures. In the case of the former, the concentration of the surgery itself in a small number of hospitals removes, on the assumption of the Tunbridge Committee, any justification for specialised rehabilitation centres not directly connected with one of those hospitals. These patients can, therefore, be considered later with the general cases. In the case of colostomy and ileostomy patients, it may be argued that learning is encouraged and morale improved by association with others going through the same experience. This may be valid, but the opportunities may be provided in the acute hospitals (especially the specialised St. Mark's), or by members of the Colostomy and Ileostomy Associations; nor does it remove the obligation to ensure that first class nursing is provided to consolidate performance after surgery. Furthermore, these patients' own views about their referrals to Princess Mary's suggest that there is a large element of general convalescence or rehabilitation in their recovery. In each of the special treatment groups distinguished at Princess Mary's hospital, therefore, there are indications that the rehabilitation facilities these patients require could be provided by district general hospitals.

Our consideration of the functional capacity of patients tends to confirm the direction of this argument. Almost one half of the patients referred from hospital report difficulty in none of the activities they might currently be expected to be performing for themselves in hospital. There may be other matters not taken into account by this study, but, on the evidence available, it is reasonable to conclude that these patients do not need treatment in hospital at all.

The other half of the patients report some degree of incapacity, ranging from very light to moderately severe. For the C.V.A. patients and one or two others, the incapacity includes most of the different kinds of activity considered. The majority, however, report one of two main sorts of difficulty. They either have problems specifically related to walking, or are weak after illness and treatment in a way that inhibits strenuous activity. Stated in these terms, these last two problems do

not seem unusual or exceptional. They are reported by patients, who are often progressing fairly clearly from illness and incapacity to recovery. For many, if not perhaps all, of these patients, some treatment is appropriate; but, from this point of view again, no compelling reasons have emerged why it should not be provided by the district general hospital.

It is impossible to prescribe appropriate measures to solve the problems here, in part because the actual data collected about incapacity is not sophisticated enough. Future research in this area should, at least, take account of three points. The concept of "difficulty" with an activity is imprecise, and may well vary with the context envisaged. The causes of incapacity are important; it is necessary to try to distinguish between that caused directly by the illness and that by extraneous events, such as transfers between hospitals, and to distinguish both of these from instructions (e.g. not to lift anything heavy for three months) that result in a limitation of activity. The time aspect of incapacity should be considered. Unless it is known whether a patient is likely to improve as a result of his own physical resources or whether he is potentially permanently disabled, no judgement can be made about the services he should receive. This capacity for recovery through time seems partly related to the distinction we make between services, in using the words "rehabilitation" and "convalescence".

The discussion has, so far, been largely in terms of patients' medical and physical conditions and of rehabilitation needs. It should not, however, be presumed that there is some corresponding relationship between social circumstances and convalescence. A dominant conclusion from the results of the study is that the large majority of patients usually live in normal surroundings without disruptive social problems, and that many experience a degree of stability and security that is above average. This leads to the speculation that it may be that those with severe and urgent problems at home feel less able to be away from home for a period of rehabilitation or convalescence. In this context, the findings that two thirds of all hospital referred patients report four or less hypothetical difficulties if they were at home (page 56 and Table 31) (i.e. could perhaps look after themselves but not their home), and that two thirds do not seem to lack support at home (Tables 15 and 17), indicate again that between one third and one half of all these patients may not need to be in hospital at all. Further inquiry at their homes might well show they would manage and recover satisfactorily there.

A further group of patients display social circumstances that seem to affect needs for convalescence or rehabilitation. These characteristics are not converse of physical problems, i.e. it is not true to say that one group of patients is referred to Princess Mary's because of social difficulties and another because of physical ones. Rather, about a third of the patients, with a considerable range of incapacity, also report such circumstances as living alone or having young children to look after, which will complicate the rehabilitation task. It seems most important that those providing rehabilitative treatment should investigate carefully the background circumstances of patients, to determine whether there are any necessary responsibilities or special tasks at home, for which the patient must be prepared. This alertness is necessary for all patients, but perhaps especially so for the elderly injured ones, who, more than the others, appear to have a grouping of circumstances affecting their rehabilitation needs.

A final small group of patients can be identified as having distinct problems of some kind. These problems again are not clearly related to other rehabilitation needs. Some are difficult to approach effectively, such as the recent death of a spouse. Others may be indicators for support at home, such as a sick member of the family. Yet others seem to indicate possible needs for the full range of resettlement services, such as chronic illness, resulting in loss of employment and tied accommodation, and in depression. One possible strategy in the face of such problems is to allow the sufferer a rest and a holiday away from them, in the hope that matters will improve or that he will find the strength to face them himself; another is to tackle those problems vigorously with the full range of social agencies available, while encouraging the patient to do the same. If the latter course is chosen, it must be more likely to succeed when provided on a local basis, where knowledge and cooperation are established, than when provided, for example, for a patient in Margate who lives in London.

Many factors influence the reasons for referral to Princess Mary's, and so, one may presume, to other rehabilitation and convalescent centres. It would require careful study among the referring agents to sort out which are the crucial ones. There is selection of patients by diagnostic groups, and within this, presumably according to the patient's condition. It appears that those who are getting better, but not very quickly, or those who need some medium degree of assistance to do so, once the acute state of their illness and treatment are past, are referred to Princess Mary's.

Alongside the medical factors, may be demographic and social ones, relating especially to age and lack of support at home. Confusing all of these, there is a third set, probably bearing no relationship at all to the individual patient's condition. They may include the traditions and policies in the acute hospitals, and their knowledge about what Princess Mary's offers to patients; the geographical position of the acute hospital and alternative facilities that are available to it, including the pressure on beds and the extent to which it provides its own pre-discharge wards; and patients' knowledge and experience of convalescence and rehabilitation units. Decisions about Princess Mary's should be taken within this broad frame of reference, and in the expectation of repercussions around it, and around hospitals in each of the Metropolitan regions.

Many of the conclusions about the services to be provided are by now becoming obvious. First we may consider those services that are not needed by the present patients. The findings about functional and social problems throw considerable doubt on the continued necessity and value of convalescent treatment, even at the reduced level of provision now current. This might well be even more pronounced in convalescent hospitals and homes not associated with rehabilitation. It may be that local authority recuperative holidays would be more appropriate to meet the needs of some of the patients in Princess Mary's. If this is so, it is possible that the different administrative and financial arrangements for these holidays make them less accessible and desirable to the patients. This, however, is speculation.

There is not much unmet need for vocational rehabilitation among the patients at present in Princess Mary's. This may well be a question of supply creating its own demand, or rather the lack of it reducing the demand. Patients with employment problems may not be referred if the resources and skills for handling them are known not to be available. One would expect, in these circumstances, patients with these problems (as described for example by Tyrer (1969) and Brewerton and Daniel (1971)) to receive the appropriate services elsewhere. The difficulty in this case is that there is neither a centre combining hospital and vocational rehabilitation nor an industrial rehabilitation unit in Kent. Although this study has not examined the unmet needs, it is important that careful thought should be given to developing the relationship between medical and vocational rehabilitation in the area.

The majority of patients do appear to need some kind of service. Besides the patients who report no difficult tasks at home, about one third of the hospital referrals report a small number, without apparently having any specific functional incapacity related to a particular part of their body. They seem, therefore, not to require any specialised medical rehabilitative treatment. Despite this apparent lack of need, the majority of the patients themselves say they needed to come to Princess Mary's, and it must be assumed, in the absence of any direct evidence on the reasons for referral, that the staff who refer them think so too. Nevertheless, the conclusion that seems most justified here about this one third of the patients is that, if their problems are to be tackled directly, they need two things. The first is a degree of support at home, in the performance of those tasks that they cannot manage, either from their family or from the social services department. The second is guidance and rehabilitation in the performance of the tasks, that are coming within their range, in order to increase their capacity still further. This would be a short-term resettlement measure, designed to overcome the need for an unnecessarily prolonged stay in a residential institution, providing little active treatment for which residence is necessary. This support and rehabilitation at home, perhaps under the supervision of the general practitioner, seems to be the most appropriate form of service indicated for these patients.

Many of the patients in Princess Mary's do under any criterion, need continued hospital treatment. The question of medical and nursing supervision has not been examined in this study, but the need for close attention may be presumed in some cases. But where it is reasonable to define patients' problems in terms of an abstract capacity, e.g. the ability to walk, and not in terms of a particular situation, e.g. the need to walk 500 yards uphill to catch a bus to go shopping twice a week, it is reasonable also to provide these services at a central point, on the grounds of efficiency and economy. Furthermore, where the patient cannot manage at home while experiencing such a disability, residential rehabilitation services clearly have to be provided. These services seem appropriate for one third or more of the patients currently receiving treatment at Princess Mary's. But while it may be asserted that it does patients good to get out of London for a time, no facts have emerged from this study to challenge the conclusion of the Tunbridge Committee that such services ought, for the benefit of the patient, to be provided in association with a district general hospital in the patient's home area.

One of the reasons the Tunbridge Committee give for this conclusion is the imperative need for the coordination of hospital rehabilitation with the work of local authority social service departments. This is reinforced by other authors. One of the major themes of the survey of handicapped and impaired is the relationship between the medical and social problems of these people (O.P.C.S. 1971a and b). With this and similar evidence in mind, Warren (1972) has argued that coordination is not enough, but that the strict divisions between hospital and domiciliary staff should be abolished. If an effective, comprehensive rehabilitation service is to be provided, medical, vocational and social components must be included.

The Tunbridge Committee, however, advocate a considerable expansion of services without being responsible for allocating the resources of manpower and finance needed for developing them. It is unreasonable to expect an immediate growth of rehabilitation departments in all district general hospitals. In acknowledging this, the Committee do not advocate immediate closure of existing rehabilitation centres. Quite clearly this aspect of Princess Mary's Hospital's work will continue, at least during a transitional period. As this is so, consideration should be given as to how to make it most effective during this time. A degree of rationalisation of referral policies, by discussion with medical staff in referring hospitals, could be achieved. Work should continue in developing the programmes of treatment provided to patients within the hospital. Consideration could be given to possible alterations in the case-mix, so that more coherent programmes of treatment can be provided. It might be thought desirable to specialise further in, for example, arthritic patients, who currently create a considerable proportion of the hospital's rehabilitation workload, and who suffer from a disease responsible for more than a quarter of the handicap and impairment in the community(1).

Alongside these possible temporary changes, other more permanent ones should be established. The indications for and effect of convalescent treatment remain unclear. Although further reductions in provision seem desirable, medical treatment away from home after the acute stage of illness may well remain appropriate for some patients. And this in itself may offer opportunities for specialisation, as will be witnessed by the transfer of a number of diabetic convalescent beds to Princess Mary's during 1973.

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(1) O.P.C.S. (1971a) Table AI.

Finally and most importantly it seems desirable to work towards the establishment of Princess Mary's as a local rehabilitation centre. If the Tunbridge proposals are currently impracticable in the demands they make on resources, the next best solution is centres to serve two or three health districts. Princess Mary's Hospital contains the rehabilitation skills and facilities, and the residential accommodation necessary, upon which to build a service to the areas currently covered by the Isle of Thanet, Kent and Canterbury, and South East Kent Hospital Management Committees. In so doing, it would be close enough to the acute hospitals to make communication and the establishment of mutually complementary rehabilitation programmes an effective reality. It would also be close enough to the Young Chronic Sick Unit at the Westbrook Day Hospital in Margate and to the Lanthorne Hospital and School for Handicapped Children in Broadstairs to develop relationships with them. Equally important, it would be close enough to the patients' own homes for a community service to be established. Patients thought by general practitioners to require rehabilitation would be referred directly to the consultant medical staff for assessment and treatment, as they are, indeed, now. The emphasis of rehabilitation as something necessarily connected with and coming after acute hospital treatment could be reduced. And the needs of the large numbers of handicapped people living at home could be met, both in assessment and in planning treatment to solve the individual, unique problems that they encounter in their daily lives. The local community rehabilitation service, defined in these broad terms, would then include the already conspicuous service provided by Princess Mary's to patients from the other hospitals in East Kent.

REFERENCES

Barker, M.G. (1968) Psychiatric Illness after Hysterectomy. British Medical Journal, 2, 91-95.

Barter, R.W. and Carey, A. (1962) Princess Mary's Rehabilitation Hospital, Margate. Rehabilitation, 42, July-Sept. 1962

Brewerton, D.A. and Daniel, J.W. (1971) Factors Influencing Return to Work. British Medical Journal, 3, 277-281

Butler, J.R. and Pearson, M. (1970) Who Goes Home? Occasional Papers in Social Administration No. 34. London: G. Bell & Sons.

Chaplin, N.W. (1972) The Hospital Years Book 1972. London: Institute of Health Service Administrators.

Department of Health and Social Security (1972a) Annual Report 1971. London: H.M.S.O.

Department of Health and Social Security (1972b) Hospital Costing Returns 1971. London: H.M.S.O.

Department of Health and Social Security (1972c) Rehabilitation, Report of a Sub-Committee of the Standing Medical Advisory Committee of the Central Health Services Council (Chairman Sir Ronald Tunbridge). London: H.M.S.O.

Department of Health and Social Security (1972d) Report on Hospital In-Patient Enquiry for the Year 1969. London: H.M.S.O.

Department of Health and Social Security (1972e) Report on Hospital In-Patient Enquiry for the Year 1970. London: H.M.S.O.

Forsyth, G. and Logan, R.F.L. (1960) The Demand for Medical Care. London: Oxford University Press.

King Edward's Hospital Fund for London (1970) Directory of Convalescent Homes serving Greater London, 1970. London: K.E.H.F.L.

Meredith, J.S., Anderson, M.A., Price, A.C., Leithead, A. (1968) 'Hostels' in Hospitals? London: Oxford University Press.

Ministry of Health (1959) Convalescent Treatment, Report of a Working Party (Chairman N.M. Goodman). London: H.M.S.O.

Office of Population Censuses and Surveys (1971a) Handicapped and Impaired in Great Britain, by A.I. Harris. London: H.M.S.O.

Office of Population Censuses and Surveys (1971b) Work and Housing of Impaired Persons in Great Britain, by J.R. Buckle. London: H.M.S.O.

Tyrer, F. (1969) Jobs for the Disabled. Lancet, March 15 1969, 568-569.

Warren, M.D. (1972) Planning comprehensive rehabilitation and social services for the handicapped. Community Medicine, May 5 1972, 74-76

TABLE 1

Number of Patients by Admission Group (Record Cards)*

Admission Group	Discharges	
	No.	%
Postoperative	204	11
G.P. Referrals	101	5
Hospital Referrals	1,607	84
Total	1,912	100

TABLE 2

Number of Patients by Admission Group (Interviews)*

Admission Group	Patients	
	No.	%
Postoperative	20	9
G.P. Referrals	11	5
Hospital Referrals	195	86
Total	226	100

*See page 8 for the classification of patients into Admission Groups, and page 9 for the methods of collecting data from patients' hospital record cards and from interviews.

Percentages in tables may not sum to 100, due to rounding.

TABLE 3

Hospital Referrals: Number of Patients by Treatment Group (Record Cards)*

Treatment Group	Patients	
	No.	%
Cerebrovascular Accidents	40	3
Diseases of Bones and Organs of Movement	221	14
Trauma	87	5
Cardiac Surgery	52	3
Colostomies and Ileostomies	91	6
Gynaecology	691	43
Miscellaneous	425	26
Total	1,607	100

TABLE 4

Hospital Referrals: Number of Patients by Treatment Group (Interviews)

Treatment Group	Patients	
	No.	%
Cerebrovascular Accidents	4	2
Diseases of Bones and Organs of Movement	18	9
Trauma	11	6
Cardiac Surgery	8	4
Colostomies and Ileostomies	18	9
Gynaecology	81	41
Miscellaneous	55	29
Total	195	100

*See page 9 for the classification of the hospital referred patients into 'treatment groups'.

TABLE 5

Sex by Admission Group. (Record Cards.)

Admission Group	Patients	
	Men	Women
Postoperative	0	204
G.P. Referrals	23	78
Hospital Referrals	349	1,258
Total	372	1,540

TABLE 6

Hospital Referrals: Sex by Treatment Group. (Record Cards.)

Treatment Group	Patients	
	Men	Women
Cerebrovascular Accidents	18	22
Diseases of the Bones and Organs of Movement	51	170
Trauma	28	59
Cardiac Surgery	14	38
Colostomies and Ileostomies	45	46
Gynaecology	-	691
Miscellaneous	193	232
Total	349	1,258

TABLE 7

Hospital Referrals: Sex Ratios of Selected Treatment Groups. (Record Cards.)

Princess Mary's		H.I.P.E.*	
Patient Group	F to M Ratio	Diagnoses	F to M Ratio
Cerebrovascular Accidents	1: 1.2	Cerebrovascular Accidents	1: 1.2
Diseases of Bones	1: 3.3	Arthritis	1: 3.0
Cardiac Surgery	1: 2.7	Diseases of Mitral Valve	1: 3.0

*Source: D.H.S.S., Report on Hospital In-patient Enquiry for 1969, Part 1. Table 5.

TABLE 8

Average Age by Sex and Admission Group. (Record Cards.)

Admission Group	Average Age	
	Men	Women
Postoperative	-	45
G.P. Referrals	55	58
Hospital Referrals	57	54

TABLE 9

Hospital Referrals: Average Age by Sex and Treatment Group. (Record Cards.)

Treatment Group	Average Age	
	Men	Women
Cerebrovascular Accidents	63	60
Diseases of Bones	60	65
Trauma	55	60
Cardiac Surgery	46	56
Colostomies and Ileostomies	57	59
Gynaecology	-	49
Miscellaneous	57	56

TABLE 10

Admission Group by Sex and Age. (Record Cards.)

Age	Number of Patients							
	Postoperative		G.P. Referrals		Hospital Referrals		Total	
	M	F	M	F	M	F	M	F
10-19		12		1	6	3	6	16
20-29		35	1	5	18	39	19	79
30-39		41	1	10	18	141	19	192
40-49		44	4	8	37	331	41	383
50-59		24	6	11	103	239	109	274
60-69		20	9	22	99	311	108	353
70-79		19	2	14	64	177	66	210
80-89		8		6	4	17	4	31
90-99		1		1				2
Total	0	204	23	78	349	1,258	372	1,540

TABLE 11

Hospital Referrals: Treatment Group by Age. (Record Cards.)

Age	Treatment Group						
	Cerebro-vascular Accidents	Diseases of Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynaecology	Miscell-aneous
10-19			1				8
20-29		1	4	2	7	19	24
30-39	1	5	5	4	3	113	28
40-49	2	9	7	8	7	283	52
50-59	10	39	19	19	23	128	104
60-69	21	94	26	18	32	97	122
70-79	6	71	22	1	16	42	83
80-89		2	3		3	9	4
Total	40	221	87	52	91	691	425

TABLE 12

Hospital Referrals: Region of Residence and Region of Referral.(Record Cards.)

Region	% of Patients	
	Resident	Referred
North West Met.	26	28
North East Met.	15	12
South East Met.	36	35
South West Met.	20	23
Oxford	2	2
Others	1	0
Total	100	100

TABLE 13

Number of Patients by Houseownership. (Interviews.)

Owner	Patients		Persons in S.E. Region %
	No.	%	
Occupier	96	42	47
Local Authority	61	27	26
Private Landlord	52	23	22
Other	9	4	5
Not known	8	4	
Total	226	100	100

Source: Sample Census 1966, England and Wales.
Housing Tables Part 1, Table 9.

TABLE 14

Number of Patients by Type of Accommodation. (Interviews.)

Type	No. Patients
Detached House	8
Semidetached House	76
Terraced House	47
Bungalow	12
Flat or Maisonette	70
Other	6
Not known	7
Total	226

TABLE 15

Admission Group by Marital Status. (Record Cards.)

Status	Admission Group %			
	Postoperative	G.P. Referrals	Hospital Referrals	All
Single	12	15	15	15
Married	69	59	56	57
Widowed	14	16	21	20
Divorced or Separated	5	3	4	4
Not Known	0	7	4	4
Total	100	100	100	100

TABLE 16

Hospital Referrals: Treatment Group by Marital Status. (Record Cards.)

Status	Treatment Group %						
	Cerebro-vascular Accidents	Diseases on Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynae-cology	Miscell-aneous
Single	10	16	30	13	30	8	21
Married	50	38	20	64	47	73	45
Widowed	20	38	32	17	17	13	23
Divorced or Separated	10	3	11	6	2	4	6
Not Known	10	5	7	0	4	2	5
Total	100	100	100	100	100	100	100

TABLE 17

Hospital Referrals: Number of Patients Living Alone by Treatment Group. (Interviews.)

Treatment Group	No. of Patients	
	Living Alone	Total
Cerebrovascular Accidents	3	4
Diseases of Bones	8	18
Trauma	8	11
Cardiac Surgery	2	8
Colostomies & Ileostomies	7	18
Gynaecology	12	81
Miscellaneous	23	55
Total	63	194

TABLE 18

Hospital Referrals: Social Class* (Interviews.)

Class	Princess Mary's Hospital Referrals		Persons in S.E. Region+
	No.	%	%
1	4	2	5
2	27	14	17
3 non-manual	35	18	) 49
3 manual	54	28	)
4	43	22	19
5	18	9	7
Unknown	14	7	3
Total	195	100	100

*Coded from the Registrar General's Classification of Occupations, 1970, married women being classified by husband's occupation, and those not currently employed by the occupation they have pursued for most of their lives.

+Source: G.R.O.: Sample Census 1966, England and Wales, Economic Activity Tables, Part III, Table 9.

TABLE 19

Hospital Referrals: Employment Status. (Interviews.)

Employment Status	%	
	Men	Women
Unemployed	9	6
Employed	67	43
Retired	24	24
Housewife	0	26
Unknown	0	1
Total	100	100

TABLE 20

G.P. Referrals: Place of Consultation. (Record Cards.)

Hospital	No. Patients
Whitstable and Tankerton	14
Faversham Cottage	3
Isle of Thanet District:	
Ramsgate Wing	9
Margate Wing	40
Royal Sea Bathing	9
Victoria, Deal	11
Domiciliary Visits	15
Total	101

TABLE 21

Hospital Referrals: Region of Referral. (Record Cards.)

Region	Patients	
	No.	%
North West Metropolitan	456	28
North East Metropolitan	187	12
South East Metropolitan	560	35
South West Metropolitan	369	23
Oxford	33	2
South Western	1	0
Birmingham	1	0
Total	1,607	100

TABLE 22

Hospital Referrals: Referring Hospital. (Record Cards.)

Region and Hospital	No. Patients
North West Metropolitan	
Canadian Red Cross Memorial, Taplow	1
Heatherwood, Ascot	11
Farnham Rehabilitation Centre	1
Barnet General	11
Finchley Memorial	3
St. Alban's City	7
Watford General	5
Edgware General	31
Ashford	1
Hounslow	1
Hillingdon	64
Southall-Norwood	5
Harefield	21
Mount Vernon	49
Northwood-Pinner and District	2
Wembley	3
West Middlesex	23
Teddington Memorial	1
St. Mary's Cottage, Hampton	3
King Edward's Memorial, Ealing	30
Central Middlesex	16
Willesden General	3
Acton	4
Whittington	37
Hornsey Central	1
St. Charles W.10	15
Royal Free	10
Hampstead General	6
University College	23
National Temperance	6
Middlesex	1
Charing Cross	9
Fulham	12
West London	21
Hammersmith	2
St. Mark's E.C.1.	14
Royal National Orthopaedic, Stanmore	3

TABLE 22 (continued)

North East Metropolitan	
St. Margaret's, Epping	11
North Middlesex	17
Chase Farm	14
Highlands	35
St. Ann's, Tottenham	4
Prince of Wales General	5
Metropolitan, E.8	23
German	1
Hackney	27
Poplar	4
St. Mary's, Plaistow	9
Whipp's Cross	16
Oldchurch, Romford	1
Chelmsford and Essex	1
St. Peter's, Maldon	1
St. Bartholemew's, E.C.1.	16
London	2
South East Metropolitan	
Greenwich District	66
Lewisham	28
St. John's, S.E.13	18
Brook General	16
Memorial, Woolwich	12
St. Nicholas, Plumstead	52
Orpington	7
Queen Mary's, Sidcup	8
Sevenoaks	4
West Hill, Dartford	19
Joyce Green	18
Medway	3
All Saints, Chatham	2
St. Bartholemew's, Rochester	16
St. William's, Rochester	2
Sheppey General	2
Kent and Canterbury	59
Whitstable and Tankerton	3
Queen Victoria Memorial, Herne Bay	2

TABLE 22 (continued)

South East Metropolitan (continued)	
Isle of Thanet, Ramsgate	15
Isle of Thanet, Margate	34
Haine	5
Royal Sea Bathing	13
Royal Victoria, Folkestone	2
Queen Victoria, Deal	1
Buckland, Dover	2
West Kent General	2
Kent County Ophthalmic	4
Preston Hall Chest, Maidstone	1
Kent and Sussex	7
Pembury	10
Farnborough	26
Bromley	7
Princess Alice Memorial, Eastbourne	14
Royal Sussex County, Brighton	5
New Sussex	2
Beckenham	1
Cuckfield	2
Guy's	18
St. Olave's, Rotherhithe	23
New Cross	5
King's College	1
Dulwich	14
St. Giles, Camberwell	9
South West Metropolitan	
St. James's, S.W.12	11
St. John's, S.W.11	1
St. Stephen's, Chelsea	58
St. Mary Abbott's	2
Mayday, Thornton Heath	12
Croydon General	4
Norwood and District	2
Royal Surrey County, Guildford	2
Kingston	10
Dorking General	3
St. Helier's, Carshalton	103
Nelson	13
Wilson	1

TABLE 22 (continued)

South West Metropolitan (continued)	
St. Peter's, Chertsey	3
St. George's, Hyde Park Corner	78
St. George's, Tooting	6
Westminster	31
Putney	2
Gordon	2
St. Thomas's	16
Royal Waterloo	1
Grosvenor	6
St. Anthony's, Cheam	1
Cambridge Military, Aldershot	1
Oxford	
Stoke Mandeville	1
Wycombe General	8
Amersham General	22
Rockingham Road, Kettering	1
Peppard, Henley	1
South Western	
North Devon Infirmary, Barnstaple	1
Birmingham	
Dudley Road, Birmingham	1
Total	1,607

TABLE 23

Admission Group by Condition on Admission. (Record Cards.)

Condition	Admission Group			
	Postoperative	G.P. Referrals	Hospital Referrals	All Patients
Good	186	79	1,482	1,747
Fair	10	20	105	135
Poor	0	0	0	0
Bad	0	0	1	1
Not known	8	2	19	29
Total	204	101	1,607	1,912

TABLE 24

Patients recorded as in fair, poor or bad general condition on admission. (Record Cards.)

Patient Group	% Fair, poor or bad
Postoperative	5
G.P. Referrals	20
Hospital Referrals	5
Cerebrovascular Accidents	15
Diseases of Bones	7
Trauma	7
Cardiac Surgery	13
Colostomies & Ileostomies	13
Gynaecology	3
Miscellaneous	9

TABLE 25

Hospital Referrals: Average number of activities reported difficult by length of time between admission and interview. (Interviews.)

Days since Admission	Average Number of Difficulties per Patient	No. Patients
1	2.72	86
2	1.87	30
3	3.38	8
4	0.18	11
5	0.86	14
6	0.14	14
7	3.33	3
8	0.25	4
9	1.75	4
Total	1.95	174*

*Excludes 21 misadministered interviews.

TABLE 26

Gynaecology Hospital Referrals: Average number of activities reported difficult by length of time between admission and interview. (Interview.)

Days since Admission	Average Number of Difficulties per Patient	No. Patients
1	1.07	28
2	0.00	5
3	0.00	1
4	0.10	10
5	0.29	7
6	0.18	11
7	2.00	2
8	-	0
9	-	0
Total	0.61	64*

*Excludes 17 misadministered gynaecology interviews.

TABLE 27

Admission Group by Degree of Incapacity. (Interviews.)

No. activities reported difficult	Admission Group						All Patients	
	Postoperative		G.P. Referrals		Hospital Referrals			
	No.	%	No.	%	No.	%	No.	%
0	6	30	2	18	82	47	90	44
1	3	15	2	18	22	13	27	13
2	4	20	1	9	17	10	22	11
3	2	10			17	10	19	9
4	3	15			8	5	11	5
5					7	4	7	3
6			1	9	1	0	2	1
7			2	18	11	6	13	6
8					2	1	2	1
9	1	5	1	9	3	2	5	3
10			2	18	1	0	3	2
11					3	2	3	2
12	1	5					1	0
13								
Total	20	100	11	100	174*	100	205*	100
Average no. of difficulties	2.5		4.7		2.0		2.6	

*Excludes 21 misadministered interviews.

TABLE 28

Hospital Referrals: Treatment Group by Degree of Incapacity. (Interviews.)

No. activities reported difficult	Treatment Group						
	Cerebro-vascular Accidents	Diseases of Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynae-cology	Miscell-aneous
0		3		3	7	47	22
1					5	8	9
2		1	2	2	3	2	7
3		2	2	2	1	5	5
4		3	1		1		3
5		4	1			1	2
6							1
7	2	2	3		1	1	1
8				1			1
9		2	1				
10		1					
11	2		1				
12							
13							
Total	4	18	11	8	18	64*	51‡
Average no. of difficulties	9.0	4.6	5.5	2.3	1.4	0.6	1.6

*Excludes 17 misadministered interviews.

‡Excludes 4 misadministered interviews.

TABLE 29

Admission Group by Activities found difficult. (Interviews.)

Activity	No. patients reporting difficulty			
	Postoperative	G.P. Referrals	Hospital Referrals	Total
Going out of doors	9	4	54	67
Up and down stairs	9	6	66	81
About the ward	3	5	22	30
In and out of bed	8	5	18	31
Washing self	2	4	13	19
Dressing	3	4	30	37
Buttons and zips	2	4	11	17
Toenails	7	7	47	61
Brushing hair	1	1	1	3
Shaving	0	0	1	1
Feeding	1	0	7	8
Standing up	3	7	33	43
Walking without aid	2	5	37	44
Total No. of Patients Interviewed	20	11	174*	205*

*Excludes 21 misadministered interviews.

TABLE 30

Hospital Referrals: Treatment group by activities found difficult. (Interviews.)

Activity	No. patients reporting difficulty						
	Cerebro-vascular Accidents	Diseases of Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynae-cology	Miscell-aneous
Going out of doors	4	12	7	1	8	9	13
Up and down stairs	4	10	7	5	5	12	23
About the ward	3	5	6	1	2	2	3
In and out of bed	2	5	3	1	0	1	6
Washing self	3	5	3	1	0	1	0
Dressing	3	10	6	0	2	2	7
Buttons and zips	4	0	2	3	0	0	2
Toenails	2	13	9	1	4	6	12
Brushing hair	0	0	0	0	0	1	0
Shaving	0	0	0	1	0	0	0
Feeding	3	1	2	0	0	1	0
Standing up	4	7	6	3	2	2	9
Walking without aid	4	13	7	1	2	2	8
Total No. of Patients Interviewed	4	18	11	8	18	64*	51‡

*Excludes 17 misadministered interviews.

‡Excludes 4 misadministered interviews.

TABLE 31

Admission Group by Number of tasks that would be found difficult if patient were at home. (Interviews.)

No. of tasks difficult	Admission Group						All Patients	
	Postoperative		G.P. Referrals		Hospital Referrals			
	No.	%	No.	%	No.	%	No.	%
0	1	5	2	18	15	9	18	9
1	0	0	1	9	8	5	9	4
2	0	0	0	0	23	13	23	11
3	2	10	1	9	41	23	44	22
4	7	35	3	27	29	17	39	19
5	3	15	1	9	22	13	26	13
6	2	10	1	9	20	11	23	11
7	4	20	1	9	9	5	14	7
8	1	5	1	9	7	4	9	4
Total	20	100	11	100	174*	100	205*	100

*Excludes 21 misadministered interviews.

TABLE 32

Hospital Referrals: Treatment Group by Number of tasks that would be found difficult if patient were at home. (Interviews.)

No. of tasks difficult	Treatment Group						
	Cerebro-vascular Accidents	Diseases of Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynae-cology	Miscell-aneous
0		3	1	1	4	1	5
1		1				3	4
2		2	3		3	9	6
3			1	2	5	22	11
4		2		1	2	15	9
5	1	3	1	2	2	7	6
6	1	5		2	1	4	7
7		1	4		1	1	2
8	2	1	1			2	1
Total	4	18	11	8	18	64*	51‡

*Excludes 17 misadministered interviews.

‡Excludes 4 misadministered interviews.

TABLE 33

Average Length of Stay. (Record Cards.)

Patient Group	Days Stay
Postoperative	7
G.P. Referrals	23
Hospital Referrals	15
Cerebrovascular Accidents	32
Diseases of Bones	21
Trauma	19
Cardiac Surgery	20
Colostomies and Ileostomies	15
Gynaecology	12
Miscellaneous	14

TABLE 34

Hospital Referrals: Treatment Group by Length of Stay. (Record Cards.)

Length of Stay Days	Treatment Group						
	Cerebro-vascular Accidents	Diseases of Bones	Trauma	Cardiac Surgery	Colostomies and Ileostomies	Gynae-cology	Miscell-aneous
0 - 7	0	3	5	2	4	40	26
8 - 14	3	35	25	3	67	640	338
15 - 21	10	152	41	45	16	8	48
22 - 28	8	19	11	2	3	0	7
29 - 35	6	7	3	0	1	2	2
36 - 42	5	4	2	0	0	0	2
42 or more	8	1	0	0	0	1	2
Total	40	221	87	52	91	691	425

TABLE 35

Admission Group by Condition on Discharge. (Record Cards.)

Condition	Admission Group		
	Postoperative	G.P. Referrals	Hospital Referrals
Better	190	79	1,477
Same	1	11	15
Worse	1	1	17
Own Request, Against Advice	4	0	67
Not Known	8	10	31
Total	204	101	1,607

TABLE 36

Proportion of Princess Mary's total Patient Days by Admission Group. (Record Cards.)

Admission Group	Patient Days %
Postoperative	5
G.P. Referrals	8
Hospital Referrals	87
Total	100

TABLE 37

Hospital Referrals: Proportion of Patient Days by Treatment Group. (Record Cards.)

Treatment Group	Patient Days %
Cerebrovascular Accidents	6
Diseases of Bones and Organs of Movement	18
Trauma	6
Cardiac Surgery	4
Colostomies and Ileostomies	6
Gynaecology	36
Miscellaneous	24
Total	100

TABLE 38

Admission Group by Place of Discharge. (Record Cards.)

Place	Admission Group		
	Postoperative	G.P. Referrals	Hospital Referrals
Home	192	94	1,507
Referring Hospital	5	0	22
Other Hospital	1	3	10
Local authority accommodation	0	0	0
Other Institution	3	0	4
Other address	3	4	63
Died	0	0	1
Total	204	101	1,607

TABLE 39

Hospital Referrals: Indicators of Recovery by Treatment Group. (Record Cards.)

Treatment Group	% of patients	
	Not discharged home	In same or worse condition on discharge
Cerebrovascular Accidents	22	10
Diseases of the Bones	8	1
Trauma	17	2
Cardiac Surgery	8	4
Colostomies and Ileostomies	11	5
Gynaecology	2	0
Miscellaneous	7	3

APPENDIX - DATA COLLECTION

A: Record Card Data Collection Form.

B: Interview schedule. Note: the schedule as shown here is as asked; interviewers were instructed to make four amendments in questions 27 and 30 to the schedule as originally printed.

RECORD CARD DATA COLLECTION

NAME AND INITIALS

H.A.A. NUMBER | 1 | 2 | 3 | 4 | 5 |

SEX: Male 1 Female 2 | 6 |

AGE | 7 | 8 |

PLACE OF RESIDENCE ..... | 9 | 10 | 11 | 12 |

MARITAL STATUS | 13 |

Married 1 Single 2 Widowed 3
Divorced 4 Not known 5 Separated 6

DATE OF ADMISSION | 14 | 15 | 16 | 17 | 18 | 19 |

WARD ..... | 20 |

SOURCE OF REFERRAL ..... | 21 | 22 | 23 | 24 | 25 | 26 |

DIAGNOSIS 1 ..... | 27 | 28 | 29 | 30 |

2 ..... | 31 | 32 | 33 | 34 |

OPERATION ..... | 35 | 36 |

STATE ON ADMISSION: Good 1 Fair 2
Poor 3 Bad 4 | 37 |

DATE OF DISCHARGE | 38 | 39 | 40 | 41 | 42 | 43 |

STATE ON DISCHARGE: Improved 1 No change 2
Worse 3 | 44 |

PLACE OF DISCHARGE ..... | 45 |

LENGTH OF STAY | 46 | 47 | 48 |

INTERVIEW SCHEDULE

Code No. | | | | Sex | M | F | Name _____

If the patient is too ill, confused or irrational to be interviewed, state reasons and close interview.

If a refusal, give reason and as much detail as possible

General

1. Date of interview | | | | | | | |

2. Interviewed by | |

3. Ward Patient admitted to .....

1 Bruce
2 Allen Daley
3 Courage Convl
4 Courage HDU
5 John Reid
6 Hope

4. Can you hear me all right? If no, ask, do you have any difficulty with your hearing? (Specify the functional difficulty).

Yes ☐

No details

Deaf ☐

Partial hearing ☐

Hearing some difficulty ☐

Hearing aid ☐

What does this stop you from doing?

Do you have any difficulty with your sight?

Yes, details ☐

No ☐

---

5. (a) Do you have any (other) disabilities? Can you tell me what they are?

Yes, details

No ☐

(b) Do you use any aids, appliances, equipment to help you in your normal daily living? (Ask all patients)

1. ☐
2. ☐
3. ☐
4. ☐
5. ☐
6. ☐
7. ☐
8. ☐

6. What does this stop you from doing?
(Mention the name of the disability where necessary)

7. Home address

8. How long have you lived at this address?

1 = Up to 1 month
2 = Over 1 month, up to 6 months
3 = " 6 months " " 1 year
4 = " 1 year " " 3 years
5 = " 3 years " " 5 "
6 = " 5 " " " 10 "
7 = Over 10 years

9. Is this your temporary or permanent address?

1 = temporary
2 = permanent

10. Are you married/single? (Probe detail where necessary)

1	Married		4	Widowed	
2	Married living apart		5	Divorced	
3	Single		6	Legally separated	

11. Date of birth (from record card)

12. How old are you?

..... years

13. When were you admitted to Princess Mary's .....

14. (a) Where were you before you came to Princess Mary's?

Type of Place _____

Date of admission _____

Length of stay _____

Name _____

Address _____

(b) Probe, have you been to any other hospitals because of this spell of illness?

---

15. (a) Patient was referred by (from record card)

Name of Hospital/or G.P. _____

Specialist - State Speciality _____

Address _____

(b) (Ask patient)
Who sent you to Princess Mary's? _____

---

16. Have you been admitted to Princess Mary's before?

No

Yes, number of times

How long ago?

Why was this?

Have you attended any other Rehabilitation/or Convalescent Hospitals as an Inpatient?

Rehabilitation		Convalescent	
No	☐	No	☐
Yes	☐	Yes	☐

If 'Yes', which hospital was this? _____

Which doctor was in charge of you? _____

What was his speciality? _____

Address _____

Reason for admission _____

_____

17. When do you expect to be discharged from Princess Mary's?

Number of days and weeks

---

18. Where do you expect to go when you leave here?

Is that your Home ☐
Hostel ☐
Hotel ☐
L.A. home ☐
Relation's home ☐
Other (write in) _____

MEDICAL

19. What you do think is the matter with you?
(Probe, short description of symptoms if necessary).

---

20. How long have you been receiving treatment for this before coming to Princess Mary's?

Where have you been treated for this? _____

Who has treated you for this (G.P. etc.) _____

---

21. Why were you admitted to Princess Mary's rather than any other hospital?
(Probe reasons fully)

22. In your opinion did you need to come to Princess Mary's?
Why do you think you needed to come?

23. Do you feel you would be better off somewhere else?
(Do you feel you would get more suitable treatment?)

Where would that be?

Why?

24. Diagnosis on admission to Princess Mary's (from the doctor's records)

25. Before you were admitted to Princess Mary's, did you have any contact with the following services?

	Per week No. of times	Per month No. of times
Doctor (G.P.)		
Social Workers		
Physiotherapist		
Meals on Wheels		
District Nurse		
Health Visitor/Home Nurse		
Home Help		
Voluntary Visitor		
Other (specify)		
Any comments		

26. Type of disabilities on admission
(Ask nursing staff or from Case Notes)

27. Here are some things that quite a few people who are in this hospital have difficulty in doing without help. I would like to ask you about each of them in turn.

Do you have difficulty in	Yes	No
1. Going out of doors		
2. Going up and down stairs		
3. Getting about the ward		
4. Getting in and out of bed		
5. Washing or bathing yourself		
6. Dressing yourself and putting on your shoes		
7. Doing up buttons and zips yourself		
8. Cutting your toe nails		
9. Brushing and combing your hair		
10. (Men only) Shaving yourself		
11. Feeding yourself		
12. Standing up		
13. Walking without aid		
14. Reading (leave out if sight a problem)		

28. Do you have any problems with

1. Going to the toilet

No ☐

Yes ☐

Details

2. Passing or holding water

No ☐

Yes ☐

Details

3. Moving your bowels

No ☐

Yes ☐

Details

(If patient has a problem unknown to medical staff and patient wishes it, inform staff in charge)

29. Is the patient continent? (Ask nursing staff only)

Yes ☐ No ☐

Urinary ☐

Faecal ☐

Stress ☐

Other ☐

30. Here are some activities which you may or may not do for yourself, but if you were at home now, could you do them without difficulty?

	No	Yes	Do not do at all
1. Do light housework like washing up, dusting, tidying			
2. Do heavy cleaning like washing floors, cleaning windows			
3. Lifting a box of groceries from the floor			
4. Make a cup of tea			
5. Prepare a hot meal			
6. Collecting pension/going to the bank/post office			
7. Shopping			
8. Heavy washing			

SOCIAL COMPOSITION

31. Could you tell me a little about who shares the household with you? (Ask only if applies)

Lives Alone _____

Household composition

Relationship to subject	Sex M F	Marital Status S M W D S NA	Age	Occupation
1				
2				
3				
4				
5				
6				

Any comments

32. (a) Do you have any children (probe still living)?
Ask only if married

	No.
Sons	
Daughters	

(b) How often do you see them (excluding period in this hospital)?

(c) Why is this?

(d) Where do they live?

---

33. (a) Have you any brothers or sisters (probe still living)?

	No.
Brothers	
Sisters	

(b) How often do you see them (excluding period in this hospital)?

(c) Why is this?

(d) Where do they live?

---

34. (a) Do you still have your mother and father?

(b) How often do you see them (excluding the period in this hospital)?

(c) Why is this?

(d) Where do they live?

35. (a) What about friends?

(b) How often do you see them (excluding the period in this hospital),

(c) Why is this?

(d) Where do they live?

OCCUPATION & ACTIVITIES

36. In what occupation, and industry have you been most of your life? (If a married or widowed woman ask for husband's occupation and industry for most of his life. If unemployed state reasons).

	Occupation	Industry
(Ask both) Subject		
Husband of subject		

37. Are you (is your husband) employed in this job now?
If not, ask for reasons.

(If 'Yes', omit Q. 38).

38. What is your present job (that one immediately before your illness)?

39. For certain groups (e.g. widows, housewives, unemployed men) and those without present employment.

Do you normally go out to paid employment -

Is 'Yes', how many hours per week?
(Probe what this is)

If 'No', do you feel able to do some paid work?
(Probe if necessary)

Yes ☐ No ☐

---

40. (Ask all)
Are you going to work after you leave here?
If not, ask for reasons

---

41. Do you want to do some paid work?
If not, why not?

---

42. What are your hobbies?
(Probe fully)

---

43. Apart from the hobbies mentioned, how else do you pass your time?

HOUSING

44. Housing

What kind of home/house do you live in?

	Owner/Occupier	☐
	Rented (Privately)	☐
	Council	☐
	Other	☐

Type of House

House	Detached	☐
	Semi-detached	☐
	Terraced	☐
Bungalow	Detached	☐
	Semi-detached	☐
Maisonette	Describe (no. of rooms, size, etc.)	☐
Flat or Tenement	Describe (no. of rooms and stories, size etc.)	☐
Other Accommodation	Hotel	☐
	Home	☐
	Hospital	☐
	Institution	☐
	Other	☐

45. Can you tell me something about the amenities you have (ask only where applies, e.g. do not ask people living in institutions or similar places).

(a) Do you have Electricity ☐

Gas ☐

Neither ☐

(b) Do you have a kitchen ☐

sole use of kitchen (sole includes sharing with another in your household) ☐

shared use of kitchen ☐

no kitchen ☐

only cooking facilities ☐

hospital/home/hotel ☐

(c) Do you have a fixed bath ☐

sole use of fixed bath ☐

shared fixed bath ☐

no fixed bath ☐

(d) What about cold water, do you have

piped cold water inside the dwelling ☐

sole use of piped cold water ☐

shared piped cold water ☐

no piped cold water ☐

(e) Do you have a piped hot water supply inside the dwelling ☐

sole use of piped hot water ☐

shared piped hot water ☐

no piped hot water ☐

46. Do you have a toilet

sole use of toilet	☐
shared toilet	☐
no toilet	☐

Is there an indoor toilet

Yes, indoor	☐
No, outside only	☐

If none, probe what amenities patient has

---

47. Where is the toilet in relation to the room in which you spend most of the day?

On the same level	☐
Upstairs	☐
Downstairs	☐

Comments - any problems about this

---

48. How many rooms do you have (excluding bathroom and kitchen, unless you use the kitchen as the main living room).

Number of bedrooms	☐
Total number of rooms	☐
Rooms occupied	☐

Any rooms you cannot use due to your (fill in as appropriate)

Why is that? (Reasons)

EDUCATION

49. How old were you when you left school?

50. What is the highest educational qualification you have obtained?