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Contemporary Themes

Some Administrative Problems in Adaptation of Houses for Home Dialysis

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Summary

A study of the rate of adaptation, cost, and method of payment for converting the house for home dialysis in 35 patients from Fulham Hospital has shown considerable differences among local authorities in assessing and demanding contributions from patients in various areas. It is shown that delay in adapting houses has resulted in the dialysis unit being unable to take on at least 19 new patients during the years 1967-70. A more uniform approach, together with some central financial arrangements, might avoid undue hardship and delay.

Introduction

Owing to the saturation of hospital haemodialysis spaces the only method of treatment available to many patients with chronic renal failure is either home dialysis or renal transplantation. The number of kidneys from all sources available for transplantation does not meet the demand, and the graft survival rate is, at best, 70% at two years. Moreover, as some patients are not suitable for transplantation home dialysis is becoming the mainstay of treatment for the control of terminal renal failure. Excellent results from home dialysis have been

achieved¹ and most patients prefer home dialysis to hospital dialysis. We have experienced certain administrative difficulties, however, which have retarded the rate at which patients have been able to go on home dialysis. This has severely limited the number of patients that we have been able to take on to the programme. The following account discusses the methods of sending patients out to home dialysis from Fulham Hospital and analyses some of the difficulties encountered.

Method

The ideal method employed for adapting a house for home dialysis is as follows. As soon as the patient is taken on for dialysis the home dialysis administrator visits the patient's home to assess its suitability for conversion. If suitable, a site meeting is called, when representatives of the local authority (usually consisting of a doctor from the health department, an administrator, a surveyor, an architect, and a representative from the local water board) meet the home dialysis administrator, the hospital social worker, and the home dialysis technician. At the site meeting a rough plan is drawn up based on the hospital specifications. Later, a more detailed plan is made and submitted to a local builder for costing. The final costed scheme is placed before the council for financial approval. Work is begun shortly after, and the whole scheme from the initial contract to the completed house should not take longer than three months.

Results

From July 1967 to December 1970 35 patients had home dialysis

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equipment installed into their houses or premises. One patient died before starting home dialysis. Of 33 patients who started dialysis at home five subsequently had transplants and two died. Thus at the time of writing 26 patients were dialysing themselves at home. In addition 15 hospital patients were being trained for home dialysis, only one of whose home was ready.

Rates of Conversion.—The rate at which homes were converted is given in Table I. This is taken as the interval between the date of writing to the authority concerned for a site meeting (or rehousing) and the completion of the work. It will be seen that many adaptations took less than three months; however, an equal number took six months or longer. The quickest conversions were those carried out early in the programme (see Table II), but later conversions—even of a similar nature—tended to take longer.

TABLE I—Rate of Adaptation of 35 Patients' Homes. (Numbers in Parentheses refer to Adaptations in Progress)

Months No. of patients	Under 3 10 (9)	3-5 15 (1)	6-12 10 (3)	Over 12 (1)

Mean adaptation time = 4.7 months.

TABLE II—Rate of Adaptations of Homes in Year Authority was first contacted. (Numbers in Parentheses refer to Adaptations in Progress)

	1966*	1967	1968	1969*	1970
No. of adaptations	1	7	9	11 (1)	7 (10)
Mean time for completion (months)	1	1.6	6.1	4.5	6.7

*One patient built own room.

Cost of Conversion.—The cost of conversion each year as applied to the three main types of adaptation—a room within the premises, an additional room, the provision of a mobile

unit—is shown in Table III. Not surprisingly the costs rose each year; additional rooms and mobile units cost considerably more than adapting existing rooms.

Method of Payment.—Patients' contributions to local authorities varied widely. Some councils paid for the full cost of the adaptations, amounts varying from £200 to more than £1,000. Other councils left the patient to bear the full cost of the adaptation, which also varied from £200 to more than a £1,000. Between these extremes eight patients were asked to contribute sums varying from £20 to £600 as part payment towards the cost of adaptation (Table IV).

TABLE III—Mean Cost of Adaptations per Year related to Type of Adaptation. (Numbers in Parentheses refer to Adaptations completed)

	1967	1968	1969	1970
Existing room	£176 (7)	£382 (8)	£384 (8)	£642 (4)
Additional room	—	£454 (1)	£1,567 (1)	—
Mobile units	—	—	£1,251 (1)	£1,326 (3)

Two patients who built their own rooms are omitted.

TABLE IV—Method of Payment related to Cost of Adaptation

Method of Payment	Cost			
	<£200	£200-400	£400-1,000	>£1,000
All council	4	7	7	3
Part council, part patient	—	5	1	2
All patient	—	—	4*	2*

*Includes 2 patients (1 in each category) who adapted own property.

Variation between Local Authorities.—In this survey the patients were drawn from a very wide area. No fewer than 15 London boroughs were contacted and seven county councils.

TABLE V—Summary of Property Type, Adaptation Time, Cost, and Assessment by Various Local Authorities of 35 Patients from Fulham Hospital

Authority	Case No.	Sex	Property Type	Rehoused	Room Type	Adaptation Time in Months	Year	Cost	Assessed	Council's Contribution	Patient's Contribution
Greater London Council											
	1	M.	P	No	R	1	1967	£228	Yes	£192	£36
	2	M.	C	No	R	2	1967	£200	No	F.C.	Nil
	3	F.	C	Yes (P)	R	5	1969	£325	No	F.C.	Nil
	4	F.	P	No	R	1	1967	£124	No	F.C.	Patient's husband carried out some of the work
	5	M.	C	No	R	2	1967	£179	Yes	F.C.	Nil
	6	M.	C	No	M.U.	10	1970	£1,467	Yes	F.C.	Rent £1.65 per week
	7	M.	P	Yes (P)	R	2	1970	£956	Yes	£355-37½	£600-62½
	8	M.	C	Yes (P)	R	2	1968	£200	Yes	F.C.	Nil
	9	F.	P	No	R	5	1968	£417	Yes	£117	£300
	10	M.	C	Yes (P)	R	10	1968	£302	Yes	£209	F.C. originally. £93 paid by charitable funds
	11	M.	P	No	R	5	1968	£514	No	F.C.	Nil
	12	M.	P	No	R	5	1968	£671	No	F.C.	Nil
	13	M.	P	No	R	8	1968	£354	Yes	F.C.	Nil
	14	F.	P	No	R	3	1969	£470	Yes	Nil	£470 as interest-free loan
	15	F.	P	No	Ex.	7	1969	£1,507	Yes	£443	£400 charitable gift. £664 interest-free loan
	16	M.	C	Yes (P)	R	6	1969	£418	No	F.C.	Nil
	17	M.	C	Yes (C)	R	5	1969	£418	No	F.C.	Nil
	18	F.	P	No	R	5	1969	Did own work	—	Nil	F.C.
	19	M.	C	Yes (C)	R	4	1969	£273	Yes	£253	£20
	20	F.	P	No	R	4	1969	£335	No	F.C.	Nil
	21	M.	P	Yes (P)	Ex.	7	1969	£1,396	No	£500	£896
	22	M.	C	Yes (C)	R	6	1970	£563	No	F.C.	Nil
County Council											
I	23	M.	C	No	R	1	1967	£173	No	F.C.	Nil
II	24	M.	P	No	R	2	1967	£124	No	F.C.	Nil
II	25	M.	P	No	R	2	1967	£205	Yes	£125	£80
III	26	M.	P	No	R	?	1966	£6,500	No	Nil	F.C.
III	27	M.	P	No	Ex.	7	1968	£454	Yes	£227	£227
III	28	M.	C	No	R	5	1968	£210	Yes	F.C.	Nil
III	29	F.	C	Yes (P)	M.U.	6	1969	£1,251	Yes	F.C.	Nil. (Initially assessed at £750)
III	30	M.	P	No	R	2	1970	£550	Yes	Nil	£550
IV	31	M.	C	No	M.U.	4	1970	£1,310	No	F.C.	Nil
V	32	M.	C	No	M.U.	6	1970	£1,100	No	F.C.	Nil
VI	33	M.	C	Yes (P)	R	2	1968	£382	No	F.C.	Nil
VI	34	M.	C	Yes (P)	R	11	1970	£458	No	F.C.	Nil
VII	35	F.	P	No	R	2	1969	£484	No	F.C.	Nil

P = Private. Ex. = Extension to property. M.U. = Mobile unit. C = Council. R = Existing room. F.C. = Full cost.

The difference between councils was considerable, both in the rate of home conversions and in whether the patients in their area were assessed. Nine Greater London councils and two county councils assessed patients in their area, but five county councils and six Greater London councils did not assess their patients (Table V). After assessment patients either paid nothing or were asked to pay sums varying from £20 to £600. Though some patients were assessed fairly according to their means there were many glaring and disturbing inconsistencies in which patients with the same means and facilities either did not have to pay anything or were asked to contribute sums up to £300.

Discussion

With maximum co-operation from the local authority it is possible to adapt a house within two months (Table I). It would seem, therefore, that three months is a reasonable time in which to adapt a property. As most patients are fully trained within three months their stay in the hospital dialysis centre should not exceed this period. Delays after three months prevent new patients from being admitted to the centre. For every three months' delay a patient whose life could have been saved will die. From our results 72 months over three months was taken to adapt the 35 homes completed. During this time, therefore, we were unable to treat 24 patients with terminal renal failure. In addition it can be calculated that we were prevented from treating a further 13 patients by the 39 months' delay in adapting the homes of the 15 patients who were in hospital. Even if one is prepared to concede that half of this total of 111 months of delay in the three years under study was inevitable for a variety of clinical and local factors there were still more than 18 patients who succumbed because the hospital dialysis beds were blocked owing to delay in adapting patient's premises.

The difficulties encountered in our unit in adapting a house for home dialysis are illustrated by the following cases.

CASE 36

Both this patient and his wife were professional people working at home. The patient developed renal failure and started dialysis in September 1966. He continued to be dialysed in the renal unit and had to abandon his plan of returning to his home overseas and had to settle in this country with his family.

In the autumn of 1969 it was decided that he should go on home dialysis. After initial unwillingness due to anxiety, particularly over financial matters, he and his wife agreed. Both the patient and his wife worked in rooms at their home in London borough 7. There were two children, a boy aged 11 and a girl aged 8, who were sharing a bedroom when home dialysis was first suggested. A loft conversion was later done at the patient's own expense which provided a room for each of the children. The house therefore presented difficulties as there was no spare room and the family were already overcrowded.

The patient having reached a decision to go on home dialysis, it was hoped that despite the difficulties in the house he would be established at home quite quickly as he was already partly trained. One and a quarter years later he was no nearer home than he was at the start. The hospital was left wondering what further problems the council could devise to prevent building starting. The patient was frustrated and angry, and all this time a patient who was trained and could have been dialysing himself at home was blocking a bed in the dialysis unit.

The following is a timetable of events to date:

17/10/69, London borough 7 approached.

7/11/69, *First site meeting*. Possibility of building a room on the back of the house considered (plan 1). Decision could not be taken as only the doctor from the M.O.H.'s department attended the meeting, the architect having mistaken the date.

13/11/69, *Second site meeting*. The patient's wife then offered her office for dialysis, provided permission could be obtained for the building of a separate office in the garden (plan 2). The present office would have made

an excellent dialysis room and its conversion could have provided an extra room for the family, thus solving their overcrowding problem.

29/1/70, *Third site meeting*. Plans agreed. Hospital dialysis team approved plans for dialysis room. Patient's wife approved plans for the new office; plans to go before town and country planning committee.

11/2/70, Hospital informed that town and country planning committee had turned down the scheme. London borough 7's architect advised patient to look for a larger house (plan 3).

7/5/70, *Fourth site meeting*. Suitable house seemed unobtainable. Patient offered children's bedroom for dialysis room (plan 4). This was turned down as too small by home dialysis administrator.

18/5/70, After much discussion it was decided to go back to (plan 1) and build a room on to the house for dialysis. This plan was accepted by London borough 7, the patient, and the hospital as the most suitable one in view of all the difficulties. It was hoped that it would be built without delay.

3/6/70, Plan of room sent by the architect. This had been passed by town and country planning committee. The home dialysis administrator was informed in a letter that invitations to tender should be sent out about 23 July and should be returned by 17 August. Council's consent to the financial arrangements would then be required, work should start on 1 September, and the probable completion date would be 3 October.

The patient was already trained, but further training was undertaken so that he could start dialysing at home in early October.

Difficulties then arose over the financial arrangements. This council grants interest-free mortgages to handicapped owner-occupiers. This was understood by the hospital and the patient to be a grant to cover the cost of providing a room for dialysis equipment. According to the council the loan was only for the cost of adapting a room, not of building one on. The estimated cost of the room was £1,600. The council limited their loan to £650.

30/9/70, Financial problem solved. Local charitable trust made grant of £950, partly as a loan, partly as an outright gift. Hospital understood work would now go out to tender, but owing to a misunderstanding between two departments in London borough 7's town hall there was further delay.

23/10/70, Work put out to tender.

17/11/70, Hospital informed that estimate for dialysis room was £1,381.92½. As there was money in hand hospital thought work would start without delay. Legal difficulties then arose.

14/12/70, Legal department at London borough 7 demanded that a form of indemnity should be signed. Patient was advised by his solicitor not to sign; the indemnity form was modified by agreement between the solicitors.

6/1/71, Signed indemnity form sent to London borough 7.

13/1/71, Legal difficulties over interest-free loan.

20/1/71, Postal strike. Patient gets papers from bank and takes them personally to legal department at London borough 7 town hall.

3/2/71, Home dialysis technicians, London borough 7's architect, and patient meet to discuss final plans. Architect now feels that the owner of the house next door should be approached and permission sought, as building which includes extension of patient's kitchen, may effect party wall. Permission of owners of adjacent property received.

12/2/71, London borough 7 promises to start work on 15/3/71 and be ready by Easter.

29/5/71 (Whitsun), patient still dialysed in hospital as work not yet finished. It is 19 months since London borough approached.

CASE 37

Because such difficulty was being experienced in getting patients home, and the length of time required for adapting a room was getting longer and longer, it was decided to give London borough 12 prior notice before this patient actually had to go on home dialysis. A site meeting was held, plans for adapting the room were agreed between the hospital and the council, and they were asked to put the work out to tender and settle the financial arrangements so that when the patient was cannulated work could start without delay. When she was cannulated three months later, however, it transpired that the council had done nothing between the original site meeting and this date. In fact, work did not start until a year after the original site meeting. During this period this case was brought before the council and the finance and health and welfare committees at monthly intervals. No amount of pressure from the hospital, however, persuaded the council to start work during this time.

The problem was a financial one. The husband of the patient was employed by the council. His wife before her illness was employed in a store but at the time of writing was finding it difficult to go to work, though she was struggling to do this to try to earn money for her dialysis room. There was one daughter living at

home who was unable to earn a large wage owing to her health. She worked and kept herself in clothes and pocket money. The house was being bought on mortgage. The council assesses on a rigid scale, which was incomprehensible to the patient, and does not seem to allow for adjustment to meet individual circumstances. The patient's husband was originally assessed to pay £206, repayable at £4 a month, and this was later reduced to £174. He was of a nervous disposition and was at a disadvantage in that he was dealing with his own employers. The thought of paying £4 a month shattered him. His local trade union representative later acted for him with the council, who accepted his offer to pay £2 a month, which is all he felt able to afford. His trade union made a grant to help him pay off part of the £174.

This situation would not have arisen if a local authority medical officer or social worker had visited the house at the start and explained the council's position to the patient and her husband and shown some concern for their difficulties. They have had to fill in forms for officials who know little about renal failure. This council seems to work in water-tight compartments, so though the assistant medical officer had visited the hospital information had not filtered through. The result was that this couple felt disheartened, as if no one locally cared for them or for their difficulties, and fear made the husband intransigent.

The timetable of events was as follows:

9/1/70, London borough 12 approached by home dialysis administrator.
2/3/70, First site meeting.
10/6/70, Patient cannulated.
12/6/70, Home dialysis administrator asked London borough 12 to start on the adaptations.
21/8/70, Husband told he had been assessed at £206.
11/9/70, After representation from the hospital social worker assessment reduced to £175 repayable in two years.
2/12/70, Committee agreed to accept husband's offer to pay off the debt at £2 a month.
1/1/71, Home dialysis administrator informed that council had agreed to work being put in hand.
5/1/71, Second site meeting necessary because so much time had elapsed since first site meeting.
25/1/71, Builders start work.

COMPARISON OF THE PROBLEMS OF CASES 38 AND 39

Case 38—The patient was transferred to this hospital on 23 October 1970 and was cannulated on the 27th. The home dialysis administrator visited her on 30 October and found that the flat in which she and her family lived had no room available for adaption. He therefore applied to the council for the patient to be rehoused. County council VIII offered a house on 12 November and a site meeting was held there on the 25th. Work was completed by the end of January 1971. The patient and her husband came to the hospital for an intensive week's training during the first week of February. The first home dialysis was on 8 February. County council VIII did not ask the patient to make any contribution towards the cost of the adaption, nor was she assessed for this. The patient went ahead reasonably confident throughout.

Case 39—This patient, on the other hand, was transferred from another hospital on 3 November 1970 and was cannulated on the 9th. The home dialysis administrator visited her on 11 November and decided that a room in her house was suitable for conversion. A site meeting was held on 23 November. At the time of writing no work had started, as county council III had only just completed the financial assessment.

These two patients started in adjacent beds in the same ward and used to be dialysed in adjoining beds in the dialysis unit. In the unit a small group of patients train at the same time and they all know about each other's affairs. Case 39 became distressed because Case 38 was getting so far ahead and was free of financial worry over the adaptation; it was therefore decided to put them on the machines on different nights. The matter was not helped by the extensive form filling undertaken by the husband of Case 39 and by the fact that his employers were approached for confirmation of his salary.

CASE 7

This patient had been treated in the dialysis unit since 1966. He was married and had three children born in 1962, 1966, and

1968. He was always anxious to go on home dialysis for two reasons. One was that as a family man he felt it would be more satisfactory and give him more time with his wife and children. The second was that he was conscientious and felt that he should free a place in the unit for another patient. He felt, however, when his youngest daughter was born, that it would be too much for his wife while she was so young.

He decided in June 1970 that he would look for a larger house as they were already overcrowded in the existing house and there was no room available for adaptation. He eventually found a house but in order to buy it he had to borrow money from the bank and various relations. London borough 4 adapted a room and he started dialysing at home at the end of November. London borough 4 later informed the hospital that the cost of adapting this room was £956. Their committee assessed this patient to pay £600.62½.

In spite of spiralling building costs it is difficult to understand how the council managed to spend £956 on the adaptation of one room. The home dialysis administrator from comparisons with other rooms had expected it to cost under £400. The patient felt that he had done his duty by buying a house and was prepared to face the extra expenses of home dialysis and the curtailment of his own and his wife's free time, but not to face a bill for £600 as well. This unrealistic assessment not only distressed the patient and his family but the bad news spread through the unit and discouraged the other patients.

CASE 35

This patient was cannulated in October 1969. A site meeting was held on 6 November at her home, and work was completed by Christmas. Because of medical and social problems she did not start dialysing at home until March 1970. She was a nervous woman aged 45. Her first husband died. Her second husband was an anxious man who found the responsibility of a machine in his own home very great, and this made him aggressive.

The fact that this patient was successfully established at home was due to the generosity of county council VII who, at the site meeting, allayed the family's fears about the cost of the adaptations, telling them that they would not be asked to contribute. Both the local welfare officer and the general practitioner were supportive, and the patient felt throughout that the local council were people who cared about her and to whom she could turn if she had any difficulties.

COMPARISON OF CASES 35 AND 37

These two patients were both middle-aged women and the family income was about the same. Both families were buying their houses on a mortgage. Each family had a daughter at or near home, and in both cases the daughter was unable to help for social reasons and her problems added to the difficulties of having the machine in the home. Both patients adapted well to home dialysis with its restrictions. Both husbands were anxious, and fear has made them difficult.

The husband of Case 35 was handled with such understanding by county council VII that apart from technical difficulties the adaptations to his house were carried out quickly and smoothly, with the minimum of inconvenience and distress to the family. On the other hand, the husband of Case 37 became more and more anxious as month succeeded month, with bitter arguments about finance. At one point marital difficulties were created when the patient became distressed by alleged statements in the council published in the local press, which included a statement from one of the local councillors referring to the payment for the adaptations, saying "I really think that if a man loves his wife as he ought to, he should not begrudge a little expense for her creature comforts."

COMMENT

Some delay is inevitable if the patient has to be rehoused. Nevertheless, we have found local authorities very helpful in finding houses for patients who may not even be on the council's housing list. Apart from the initial delay of arranging site

meetings the factors responsible for the most delay are the time taken for passage through committees and the various financial arrangements different councils make. Where property has to be altered extensively or built on, permission from the town and country planning officer has to be sought. Town and country planning committees seem to meet rather infrequently, and delays have been experienced in gaining their permission for plans. In this situation we feel that the chairman's action should be to expedite their decision. Moreover, it is remarkable that builders and architects seem unaware of planning regulations in submitting designs which are turned down by town and country planning committees, especially when the architect is employed by the council to which he is submitting the plan.

Most schemes have to be approved by the health and welfare committees, and delay has been experienced in plans passing such committees. It is probably true that most lay members of these committees have little or no insight into dialysis, and some of the sense of urgency felt by the hospital unit (who may be unable to take new cases until a patient is discharged home) is not transferred to such committees. On this account we have to rely on the knowledge of the medical officers of health, often inviting them to the hospital for discussion with renal unit staff. Unfortunately very few attend.

The methods used for assessing patients for payment towards the room adaptations have caused concern among patients and staff. Local authorities differ greatly in the way in which they interpret the Ministry of Health circular (D/C256/01) which sets out overall guidance regarding adaptations to houses. On the one hand, some—for example, London borough 15 and county council VIII—do not assess their patients and require no contributions, while, on the other hand, others not only assess but require a considerable contribution from their patients—for example, county council III. In between these two extremes there are any number of variations, as shown in Table V. Some councils give interest-free loans to a patient who is an owner-occupier—for example, London borough 10. Others will not—for example, London borough 12. It seems that geographical locality rather than need decides how much a patient will have to pay for the adaptations.

There are other inconsistencies. Patients of similar means do not pay similar amounts (compare county council VII, Case 35, with London borough 12, Case 37). Some councils—for example, London boroughs 7 and 12—will not start work until the financial arrangements are settled, and this may drag on for years. Others start work and give time for the completion of financial arrangements later—for example, London boroughs 4 and 5.

The form of assessment by the councils is often too rigidly applied, all services from small sums for home helps to expensive building projects being assessed on the same basis. It does not take into account the fact that the family's standard of living has been reduced. (Employers are helpful about finding suitable jobs, which is an important part of the patient's rehabilitation, but, even so, in most cases the patient's earning power is diminished and his chances of promotion will be negligible.) The scales are rigidly based on the patient's earnings on his return to work, which may well be at a reduced level. An average over six months would be fairer, as most patients need time off for recannulation etc., and their income fluctuates. Scales also take no account of the fact that the patient may have had a long period of illness and absence from work before going on dialysis, and the family will have had to live on social security during this period. When this happens the family's material possessions, household goods, and clothes wear out and need replacement, so that expenses are abnormally high during the first months after the patient's return to work. An example of this is shown in Case 10.

CASE 10

This patient was a married man with three children at school.

Before his illness he had lived in a private house, from which he worked, but when he started on dialysis he had been unable to work regularly for over two years. The family lived during this time on social security, and his wife supplemented the income by doing a part-time job in a shop. He therefore became very depressed, as he is a conscientious man, and felt he was not supporting his family adequately. This in turn had an adverse effect on his wife and children.

London borough 7 rehoused him and adapted a room for dialysis. He obtained a job and began to feel more hopeful. Then he learnt that he had been assessed to pay the full cost of adapting the room—£302.37½. All his fears about his illness, his ability to manage the machine at home, and tackling a new job became focused on what he saw as financial disaster. He went so far as to ask for the machine to be removed and to be dialysed in hospital again, which would cost him nothing.

The hospital made representation on his behalf. The assessment, based on his earnings in his new job, took no account of his long period of unemployment in which his material possessions had worn out, or the extra expenses incurred with the move. As a result, the assessment was reduced to £130 and later reduced again to £92.73½.

The difficulty here was that the completely unrealistic assessment of £302.37½ frightened him to such an extent that he was unable later to meet the much more reasonable assessment of £92.73½. If this assessment had been made at the start and it had been made clear to him that he was not expected to make any contribution until he had re-established himself, he would have probably been able to pay it off over a period of years without undue distress. In the event any letter to him requesting money caused such anxiety that a charitable society paid off the debt.

Conclusion

Many of the patients being assessed have only recently started haemodialysis. The complexity of the machinery, their anxiety about returning to work, and the complication brought to their life by dialysis are enough in themselves to cause tension. To be presented with a bill for £500 in addition to all this may result in considerable distress to patient and staff alike. We feel, therefore, that a more uniform approach by local authorities would prevent the perpetuation of the anomalies. A directive setting out in greater detail the method of handling these problems is urgently required. Perhaps some central financial arrangements would avoid undue hardship and delay. The spiralling builders' costs are a troublesome feature and some saving might be made employing a smaller number of builders.

Mobile units, which are prefabricated huts containing all the necessary equipment for dialysis, have been used successfully in our programme. They cost more than adaptations but have the advantage of speed of delivery and are the property of the authority who buys them. In the event of dialysis being discontinued they may be used by a new patient in the area.

It is probably true that our experience, which is based mainly on London suburbs, contrasts with units outside London.² These problems may be aggravated by the inadequacy of the property and an acute housing shortage often found in the greater London area.³ We feel that if some of the administrative difficulties are avoided then many more patients could be taken on and the morale of the existing patients vastly improved.

We would like to thank the staff and patients of the dialysis unit at Fulham Hospital for their help, and the various local authorities for providing us with the cost for adaptations to the properties in their area. Requests for reprints should be addressed to Dr. P. E. Gower.

References

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