HOME CARE OF THE SICK CHILD*

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In recent years there has been much interest in various centres in Britain in the idea of caring for sick children in their homes, and thereby admitting fewer of them into hospital. The impetus for this trend can be traced to several sources.

1. The late Sir James Spence had in the 1920's started the Babies' Hospital in Newcastle, and a feature of this was that the mothers were encouraged to come into hospital with their children and to take an active part in their day-to-day care. His insistence that the mother and young child together form a single unit—a unit which it is perilous to break up, particularly at a time of stress such as an illness of the child's—was not then the accepted fact that it has

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since become. Spence's influence upon his fellow paediatricians stimulated them to turn a more critical eye upon their own hospital units, and since in these it often proved impossible to follow Spence's plan of admitting mothers along with their children, the alternative of keeping both at home and doctoring the child there had to be considered.

2. The disastrous effects which a child may suffer if he is separated from his mother was high-lighted by the work of Bowlby, whose documented evidence on the subject was published in 1951 in his *Maternal Care and Mental Health*. Hospitalization of a child, especially when the stay was prolonged, or when it was not mitigated by frequent visiting by the parents, was shown to be a potent source of emotional disturbance, reaching sometimes far into later life. Although children's hospitals have not been slow to accept the reality of these dangers and have greatly humanized their arrangements,† the most logical and least cumbersome solution of the difficulties may still be to take the hospital into the home whenever possible, rather than the other way about.

3. The rising standard of living and the improved standards of child care, together with the trend towards smaller families, has meant that a mother is more likely to be in a position to devote herself to the detailed care of a sick shild.

4. The risk to a child in hospital of developing a cross-infection, though immensely smaller today than it used to be, can never be ignored. One of the first schemes for nursing children at home, that at Rotherham, was started largely because of the high mortality amongst young children admitted to hospital and there acquiring gastro-enteritis.

5. To the family doctor it is a sad loss if every patient that becomes seriously ill is necessarily admitted to hospital, since too often today the general practitioner is not on the staff of the hospital and so loses touch with the patient, We all know the fillip we get from steering a child through a serious illness, and the heart-warming gratitude we receive from the parents. How necessary it is that the general practitioner with his daily load of trivialities, should also have his share of these deep satisfactions! Furthermore, the prestige which the family doctor acquires by being himself able to handle major and not merely, minor illness enhances his patients' confidence in him and so makes it easier for him to doctor them well.

6. An incidental advantage of home care over hospital is saving of cost, since a hospital bed costs at least £25 per week to maintain.

BRITISH SCHEMES OF HOME NURSING

Although conditions of medical practice in South Africa no doubt differ greatly from those in Britain, so that your needs are different from ours, it may be of interest to you to hear something of the schemes for home nursing of sick children which have been started in Britain since the War.

There has long existed throughout the country a home nursing service. This began, like so many other social services, by voluntary efforts, when the Queen's Institute of District Nurses was founded in 1887, but later it was taken over for the most part by the local authorities. Each local authority now maintains a group of District nurses, but there is a good deal of variation in the way in which their services are deployed in different places. Any local authority may, if it chooses to do so, second some of the nurses it employs to the nursing of sick children at home, and this is what has been done in the first three schemes which I shall mention.

Rotherham is an industrial town of 80,000 near Sheffield in Yorkshire. In the post-war years there was here a high mortality from infantile gastro-enteritis, much of which was due to infection acquired by young children admitted to hospital from other causes. This situation prompted the Medical Officer of Health, Dr. J. A. Gillet, to organize a scheme which would make it easier for sick children to be nursed at home instead of being admitted to hospital. From the team of district nurses 2 with paediatric training were put at the service of any general practitioner who asked for them. The service was quickly popular amongst the local doctors and an average of about 600 cases have been dealt with each year since 1949. Concurrently with the start of the home-nursing service deaths amongst children from enteritis fell from 31 in 1948 to *nil* in 1952, although no doubt many other factors contributed to this striking fall (Gillet, 1954).

The success of the Rotherham scheme prompted a somewhat similar scheme in one district of Birmingham. In this instance, however, the initiative came from the local children's hospital, which invited the local authority to provide two home nurses, while the Birmingham Children's Hospital provided paediatric nursing training for these nurses. The scheme at present functions in an area surrounding the hospital with a population of 100,000. A feature of the Birmingham scheme is that the nurses work in close co-operation with both the general practitioner and the children's hospital. This makes it easy to achieve continuity of treatment when a child is treated at first at home and later is transferred to hospital, or conversely when a child is discharged early from hospital in order that treatment may be completed at home (Smellie, 1956).

The difficulties of providing hospital care for all premature babies prompted Miller (1947, 1948) in Newcastle to ask how far hospital care was really necessary for the majority of these small babies. Here the midwives employed by the local authority were each given training in the premature unit at one of the maternity hospitals, while most of the smaller babies became the responsibility of one or two midwives with special experience in this field. It was found that the results of caring for premature babies at home, even in a city where the standard of housing is low, can equal those attained with hospital care, except in the case of the smallest babies—those below 3½ lb,—which fare better in a hospital premature unit. These satisfactory results in the home were achieved by adopting the simplest methods with a minimum of special equipment, and in this way the mothers could generally be taught by the nurse how to handle and feed these small babies. An important advantage of rearing a premature baby at home is that the mother, and indeed the whole family, gain a sense of achievement and pride in the successful outcome of their own efforts, and this cannot but be a helpful influence in strengthening the family as a unit.

The scheme centred on the paediatric department of St. Mary's Hospital, London, differs entirely from the Rotherham, Birmingham and Newcastle schemes, in that the hospital and not the local authority provides both the personnel and the finance for the service, the local authority contributing only the necessary transport. Further, the scope of

† See Moncrieff, A., page 978 of this issue.

the scheme is more ambitious since doctors as well as nurses are provided. Lightwood *et al.* (1957) state that the aims of the scheme are 'to redress what we believed to be a faulty balance between hospital and domiciliary practice; for we had found that nearly a quarter of the children in hospital during a review period were admitted for conditions which could have been managed at home if the doctors had possessed the facilities and experience required, and that there were other children whose stay in hospital could have been shortened'.

The patient remains throughout the responsibility of the general practitioner, supported by the hospital-based mobile team, consisting of 2 part-time paediatricians, a nursing sister, 2 nurses, and 1 part-time physiotherapist. Any general practitioner in a defined area with a population of 75,000 around St. Mary's Hospital may call on the services of the team. A wide range of diagnostic and therapeutic techniques thus becomes available to the sick child at home, and procedures which have been applied include pleural aspiration, duodenal intubation, subdural tapping, B.M.R. determination, fat balance, intravenous fluid administration including blood transfusion, continuous limb traction and the steam tent. In a real sense, therefore, the St. Mary's Hospital scheme does take the hospital into the home.

The cost of treating a patient at home under this scheme works out at a small fraction of the average cost of a hospital-treated case, though it is difficult to provide a precise basis for comparing the costs of the two types of care. The number of cases dealt with in 1955-6, the second year of the scheme, was 376.

THE CAMBRIDGE SCHEME

The various schemes I have mentioned so far all operate in densely populated districts where the standard of housing is low. I myself am so fortunate as to work in very different surroundings, in the country town of Cambridge and the surrounding rural district, where the standard of housing is comparatively good, and the quality of medical care provided by the family doctor usually high. Under these happy circumstances many of the aims of the special schemes for home nursing of children can be realized by making full use of the ordinary services provided by the National Health Service and by the local authority. In a circumscribed district like this, a consultant soon comes to know most of the family doctors personally, as well as many of the domiciliary nurses and midwives. His advice is freely sought over the telephone and, under the domiciliary consultation service of the N.H.S., the paediatrician is able to see a sick child at its home in consultation with any family doctor who wishes such help. In this way the paediatrician, with his access to the laboratory facilities of a hospital, can bring these facilities to bear upon the diagnostic problems of any child who is ill at home, while nursing help can be secured from the district nurse or midwife. The real key to the matter, however, is the easy access which the family doctor has to the opinion of the paediatrician. One thinks of the heavy load of responsibility of the doctor presented with the child with acute abdominal pain and anxious parents who are sure that he has appendicitis; or the child with an obvious respiratory infection plus a suggestion of neck stiffness; or the acutely febrile child devoid of any localizing signs; or the baby who has started an acute diarrhoea; or the child with vague symptoms and a story of contact with polio—many worrying cases such as these the family doctor could not risk keeping at home on his sole responsibility; yet after a consultation with the paediatrician a decision to keep the child at home is often arrived at.

By the same token, the hospital stay of many children can be much shortened if the paediatrician in charge is in a position to discuss the case over the telephone with the family doctor who will be looking after the child on his return home. To give some examples of how this liaison between hospital and home doctoring may operate:

Pyloric stenosis: In Cambridge over the past 8 years there have been admitted just 100 cases of pyloric stenosis, the majority treated surgically. Three-quarters of these babies stayed in hospital 7 days or less and nearly half for 4 days or less, returning home with their sutures in. There have been no deaths.

Herniotomy: The child may return home the day after operation, sutures being removed later either at the hospital as an out-patient, or by the family doctor or the district nurse at home.

Tuberculosis: The advent of chemotherapy has made it possible both to shorten materially the duration of treatment, and to conduct much of this treatment at home, where streptomycin injections may be given by the district nurse.

Metabolic investigations: With ingenuity on the part of the physician in devising appropriate experiments, it is surprising what elaborate investigations the average mother is capable of carrying through. Rough but informative calcium balances have proved feasible in the home, and the relative ease with which total faecal cellections over a long period can be obtained from children at home has a number of applications, for instance in assessing the effectiveness in fibrocystic disease of the pancreas of different dosages of pancreatin.

Arrangements such as those I have described produce a tangible saving in hospital beds. I have estimated (Gairdner, 1956) that in the area in and around Cambridge with a population of 287,000 the total number of hospital beds for children is 84, or 29 per 100,000; this figure includes E.N.T., ophthalmic, long-stay tuberculous and orthopaedic cases and infectious diseases, as well as all general paediatric cases, with the sole exception of prematures. This figure would be reduced to about 20 per 100,000 if E.N.T. children's beds, largely employed for tonsillectomies, were excluded. These figures are far below those which have generally been thought necessary (Spence and Taylor, 1954), and are a measure of the economy in children's hospital beds which results when local medical arrangements are conducive to a really effective dovetailing of home and hospital doctoring.

If much of the treatment of acute illness in childhood is to be carried out in the home, it seems clear that sooner or later the teaching of clinical paediatrics will need to follow. If the hospital in its diagnostic and therapeutic functions is to be taken into the home, so must its teaching function. This conclusion has not yet been translated into practical policy at our teaching centres, although before long this is likely to happen, if only because of the increasing dearth of 'teaching material' in the children's wards of many hospitals.

CONCLUSION

For many years those working in general practice have pointed out that as, increasingly, all but the more trivial

aspects of medicine tend to be carried out in the hospital rather than in the home, so the life of the family doctor has progressively been deprived of interest and his prestige lowered; and that, since in the last analysis the quality of medical care a community received depends upon on the standard of work of its family doctors, this trend towards hospital doctoring is a retrograde one. If this view is accepted, then I should like to think that, by providing the means for treating sick children at home, we are doing something effective towards re-establishing in a key branch of medicine the crucial importance of the family doctor.

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