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THE CARE OF CHILDREN IN HOSPITAL*

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The form of human institutions is predetermined as much by the age in which they are set as by the men who set them. Charles West founded the Hospital for Sick Children in Great Ormond Street in 1851. In this instance the age overcame the man. He was an obstetrician of the restless reforming type, as became the son of a nonconformist minister who was half pedagogue and half evangelist. Through his father's school, through an apprenticeship to a local apothecary, through St. Bartholomew's Hospital, and through several Continental universities he pursued a notable academic course with serious pertinacity. Afterwards he practised midwifery in London, with a reputation and success which made him Lumleian Lecturer, Harveian Orator, and Senior Censor of this College. Near the age of 40, which is the climacteric of the reformer, he turned his energies to propagating the study of disease in childhood in lectures, books, and pamphlets. He was obsessed by the appalling ignorance in this branch of medicine. That more than one-third of the children he delivered would die before the age of 12 seemed to weigh heavily on his mind. He conceived the idea, rightly or wrongly, that the quickest remedy was to open a children's hospital which, he said, "would afford the means of instruction to students, as well as furnishing opportunities for extending the boundaries of our knowledge concerning a class of disease frequent in their occurrence, dangerous in their character, and often very obscure in their symptoms." Against much opposition he succeeded in founding his hospital, in the famous house of the famous Richard Mead, and there he worked for twenty-three years. But, as Norman Moore said of him, "the conduct of other men so rarely satisfied him that he was not a happy colleague, and left both St. Bartholomew's and the Hospital for Sick Children in a state of feud with other members of the staff." His remaining years were spent, as is the way of such men, in brooding over medical education and in other discontents. So much for the man whose name we honour in these lectures.

The age he worked in needs little description. The mere mention of it raises pictures of self-confident men and women toiling earnestly in every field from poetry to politics. In many respects it was a great age, but it was an unfruitful time for this experiment of opening children's hospitals because the strongest interests were then flowing in other directions. In medicine they were towards sanitary reform. Elsewhere interests were centred on religious questions and on the self-discipline of character. In practical affairs the Puritan ethos was being harnessed to iron, coal, and railways in new industrial enterprises, in a prevailing atmosphere of excessively bad

taste which permitted even the dons of Oxford and Cambridge to erect architectural monstrosities. That Charles West and his colleagues achieved so much in circumstances so adverse was praiseworthy. They worked under difficulties. Their hospitals bore the impress of these difficulties, and we are still affected by them.

The chief of the adverse circumstances which beset the founding of the early children's hospital was the established authority of the adult hospitals already in existence for more than a hundred years. It inevitably followed that children's hospitals were built and arranged like the older hospitals. They inherited the same oblong wards and cheerless corridors. They imitated their methods of staffing and of nursing. They pursued their methods of research. This was a misfortune, because the needs and arrangement of children's hospitals differed then, as they differ now, from those of other hospitals. We have not yet escaped the influence of these false conceptions.

Another adverse circumstance that made the eighteenth-fifties an unfortunate period for the founding of children's hospitals was the prevailing sentimentality of the times. In this attitude of mind children's hospitals were regarded too much as refuge homes for slum children and too little as places for the scientific study of the diseases which might best be treated there and of the methods by which they might best be nursed. They suffered from an overdose of Shaftesbury and Dickens. The paramount need of the time, so far as it concerned the health of children, was a clear analysis of the facts about disease in childhood adduced by those methods of study which, from Sydenham to Thomas Lewis, have revealed so much about the diseases of adult life. Another handicap to the scientific study of children's diseases in hospitals was the dread of admitting children because of the danger of death from cross-infection. The early children's hospitals avoided this difficulty by refusing to admit children under the age of 2, which, although a justifiable procedure at that time, was an ostrich-like policy towards study of disease in early infancy. Therein lies a partial explanation of our comparative ignorance in this most difficult and least understood branch of medicine. Charles Cameron's remark still holds true: "There is no branch of medicine in which experience is more necessary and yet more difficult to come by."

A discussion of these problems is not an academically exciting subject for a lecturer. It is difficult to raise it above the level of a pedestrian guide, but I choose it for three reasons. The first is its practical importance at a time like this, when the planning of new children's hospitals is in the air and when their special needs may again be subordinated as they were a hundred years ago. The second reason is that the problems involved are particular and technical, and I wish to suggest that they cannot be

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understood unless the facts are carefully analysed. The third reason is that during the past two years, as a member of the Curtis Committee, I have had the opportunity of examining many kinds of children's institutions, assessing their methods and comparing their results, and this experience has taught me that the care of children is as uneven in our hospitals as it is in other institutions—good in some and very bad in others, and where it is very bad the explanation lies usually in a failure to define personal responsibility, or in the imposition of a personal responsibility by a remote governing or administrative body on a staff who are unwilling to confess or complain about their difficulties.

Admission to Hospitals

The number of children's beds required in hospitals is influenced by many factors apart altogether from local variations in the incidence of disease. From my own observations I have estimated that in two children's hospitals or departments both doing the same kind of clinical work the number of beds required may vary by as much as 100%, according to the manner in which the hospital's work is carried out. A hospital with satisfactory working arrangements will deal with as many children in fifty beds as another hospital with unsatisfactory working arrangements will deal with in a hundred beds. The economics of these variations is important. Assuming that it costs £250 a year to maintain each hospital bed, which is now a modest estimate, the saving to the first hospital would be £12,500 a year, less the expenditure on the extra salaries and maintenance costs required to keep the work at a satisfactory level. If these extra costs to the first hospital be put as high as £5,000 a year it still enjoys a considerable saving. The crux of the matter is in the maintenance of satisfactory working arrangements. Therein lies true economy. I shall attempt to define these arrangements after I have examined what work is required of children's hospitals and departments.

A hospital's work is usually estimated in terms of its number of beds, its number of patients, and the average duration of their stay. The needs of a town or district are estimated by adding together these numbers from all the hospitals in the town or district. These somewhat colourless records do not take into account the variable local factors which govern hospital admissions or the standard of work within the hospitals.

We may arrive at a more precise estimate of the needs by studying figures collected by two of my colleagues, Dr. Mary Taylor and Dr. R. B. Thompson, who have recently made a detailed survey of all the Newcastle children who became patients within hospitals or nursing homes during the years 1943 and 1944. They undertook this research in order to find out which paediatric diseases throw the heaviest burden on the hospitals, by assessing their severity and determining their age incidence. Their detailed report will be published shortly, but I am allowed to quote some of the results which will illustrate my subject. During those two years there was little bombing in or around Newcastle, and the results can be taken as fairly representative of normal conditions. In order to assess the local variable factors and to provide comparison with results from other towns it needs to be explained that, apart from a shortage of beds in long-stay hospitals, the hospital accommodation for the city's own children was ample, and there were no waiting lists for children; that the standard of staffing was fairly satisfactory; that the citizens, considering their native caution, had a reasonable confidence in their hospitals that did not deter them from sending their children there. On the other hand, the threshold of admission was high because of a prevailing paediatric policy which

required that, whenever possible, sick children be treated in their own homes and not in hospitals, and that admission for "observation" be discouraged. An exception to this policy was the ready admission of children with scarlet fever to the fever hospital, and the low threshold of admission of children for tonsillectomy.

The inquiry covered all children in the ages between birth and the end of the twelfth year. The hospitals and nursing homes drew patients from a wide area, but only those children from the city itself are included. It was estimated that within these ages there were resident in the city 49,800 children in 1943 and 50,400 in 1944. The error of computation in these figures is such that 50,000 can be taken as average for the two years and used as a basis for calculation. The total population living within the city in these two years was estimated at 260,000. Of the 50,000 children, 3,782 were admitted to hospitals and nursing homes in 1943, and 3,704 in 1944. This is an average annual admission of 3,743 (7.48% of the 50,000 children). Of these, 890 were admitted for tonsillectomy. Excluding the tonsillectomy cases 2,853 were admitted (5.7% of the 50,000 children). Had the age groups of 13 and 14 been included, the percentage of the city's children admitted to hospitals would have been slightly lower, as the admission incidence of the older age groups is lower than in the younger age groups.

Tables I, II, and III illustrate the nature of the circumstances under which these children were admitted to hospital.

TABLE I.—Types of Hospitals Admitting 3,743 Children

| | | |
|--|---------|----------------|
| Children's hospitals and children's departments of general hospitals | | 2,163 patients |
| Fever hospitals | | 1,218 " |
| Children's wards in special hospitals | | 237 " |
| Children's sanatorium | | 30 " |
| Private nursing homes | | 95 " |

TABLE II.—Ages of Patients

| Age | No. of Patients | No. of Patients, Excluding Tonsillectomy |
|--------------|-----------------|--|
| Under 1 year | 419 | 418 |
| 1 year | 256 | 252 |
| 2 years | 345 | 312 |
| 3 " | 338 | 249 |
| 4 " | 354 | 235 |
| 5 " | 372 | 261 |
| 6 " | 365 | 237 |
| 7 " | 310 | 197 |
| 8 " | 249 | 166 |
| 9 " | 227 | 163 |
| 10 " | 188 | 136 |
| 11 " | 176 | 127 |
| 12 " | 144 | 100 |
| Total | 3,743 | 2,853 |

TABLE III.—Admissions in Age Groups

| | Total | Under Age 1 | Under Age 5 |
|-------------------------------------|-------|--------------|---------------|
| Admissions, including tonsillectomy | 3,743 | *419 (11.2%) | 1,712 (45.7%) |
| Admissions, excluding tonsillectomy | 2,853 | 418 (14.6%) | 1,466 (51.4%) |

* 107 of these were treated in infectious disease hospitals.

A perspective view of the various diseases for which children enter hospitals, and of the arrangements needed for their treatment, can be obtained only from a detailed analysis of many factors, including the age of the patients, the season of admission, and, in the case of trauma, the peak hours of the day when the accidents take place. I will quote only a few illustrative facts.

Table IV shows the chief categories of disease, excluding tonsillectomy patients. The distortion of statistics which comes from considering the records of one hospital only is revealed in the fact that, of 761 city children admitted to one children's hospital, 552 (72.5%) were patients sent

for tonsillectomy, while of 962 children admitted to another hospital only 63 (6.5%) were sent for that purpose.

TABLE IV.—Chief Categories of Disease

| | No. of Patients | Remarks |
|--------------------------------------|-----------------|--|
| Trauma | 306 | 55 had serious burns and scalds, 77 fractures, and 56 head or other serious general injuries |
| Abscess, cellulitis, and skin sepsis | 202 | |
| Acute lung diseases | 312 | 150 had pneumonia |
| Tuberculosis | 129 | 3 had bone tuberculosis, and 26 tuberculous meningitis miliary tuberculosis |
| Emergency surgery | 79 | 31 were under the age of 3, and 42 had appendicitis |
| "Planned surgery" | 115 | 60 were treated for hernia, and 23 by orthopaedic operations |
| Specific infectious fevers | 929 | 595 had scarlet fever and 190 diphtheria |
| Acute infective gastro-enteritis .. | 122 | |
| Dysentery | 90 | |
| Meningococcal meningitis | 22 | |
| Rheumatic heart disease | 15 | |
| Venereal disease | 7 | |
| Nephritis | 11 | |
| Coeliac disease | 7 | |

The enumeration of patients and their diseases in Table IV reveals little of what goes on in children's hospitals. It gives no clue to the work of the staff or the arrangement of their duties. We may see the matter more clearly, however, if we examine their duties in three categories. The first is the *clinical responsibility* of doctors and nurses in the admission of each child, in its immediate diagnosis, and in its nursing care and treatment. The second is the *social responsibility*, for which I wish I could find a less tarnished phrase to describe duties which involve, amongst other cognate things, the explanation and advice given to parents at the various stages of their child's illness. The third is the *supervisory responsibility*, which devolves on one or more experienced members of the staff in controlling infections, in arranging and rearranging the right juxtaposition of patients on physical and psychological grounds, in adjusting the proportion of nurses to patients and patients to nurses, and in other duties which seem to be more important in children's hospitals than in those of adults. I shall attempt to illustrate these needs by examples, but we may get a clearer view of the picture if we attune ourselves to it by imagining in each case that the patient is our own child. I have yet to find that what is not good for our own children is likely to be good for other people's children—a useful rule of thumb in all matters concerning the care of children in hospitals.

A first example may show what is required in service and in time in the common event of a severely injured child being admitted to hospital. A severely burned child arrives in hospital within three or four hours of the accident. He will then be clad in emergency dressings and relatively comfortable. Except to those with training and experience in this branch of clinical paediatrics his condition at the time of admission will not reveal the series of sudden changes about to take place during the next twenty-four hours, each of which may need to be countered by decisive action. Within ten minutes of admission he should be seen by someone capable of assessing the injury and foreseeing the probable sequence of events. For about three hours afterwards the child will require the continuous attention of two doctors and a nurse, engaged in clinical studies of the patient's changing condition, in serial estimates of blood concentration, in intravenous plasma treatment, and in dressings under anaesthesia. For one or two days afterwards the child will require close examination at three-hourly intervals night and day to adjust the treatment to the needs of the moment. In the later stages considerable time will be spent in applying dressings under anaesthesia. Throughout all this activity the morale of

the child, on which so much will depend in the later stages of the illness, will require purposeful attention and support. The time spent in this care and treatment may be estimated in medical and nursing "man hours." During the first day of his stay in hospital a burned child may require as much as ten "medical man-hours" attention.

Other examples could be taken from children severely ill with infective enteritis or meningococcal meningitis, or peritonitis or soft-tissue injury, each of which may claim two or five medical man-hours immediately after admission to hospital. The urgency of these situations in paediatrics is due to the small margin of safety, by which delay for half an hour or a small error in treatment or nursing technique may kill the child. Only those who have worked under these conditions can appreciate the time, the concentration of effort, and the combination of clinical and laboratory skill required in the diagnosis and in the control of treatment in a busy children's department. It is easy to see how administrators, matrons, and medical men who lack that experience may fail to recognize the needs, and how dangerous it may be to leave the planning of children's hospitals in their hands. I do not wish to overpaint the picture, but from an experience spent equally in adults' and children's wards it seems to me that there is no branch of medicine which requires more time, more care, more promptitude, and more experience than clinical paediatrics in hospitals.

In addition to these clinical duties the staff must find time for what I have described as their social and supervisory responsibilities. The first of these can be recognized by estimating the time spent in contacts which must be made with parents when their child is brought to hospital or taken from it. What these contacts are can best be realized if we put ourselves in the position of the parents and then see how much courtesy and explanation we would expect from someone whose judgment we trusted. The *supervisory responsibility* of the medical staff is exemplified in the steps which might be taken on discovering that a child's recovery had been complicated by an intercurrent infection. An examination of all the arrangements of the ward, from kitchen to napkin bins, from nurses' hands to cleaners' cupboards, might be carried out before a solution of the problem was found. The ward round comprises constant supervisory responsibilities of this kind, which claim considerable time and patience in all children's departments.

Children's Wards

It is easy to slip into satire in describing a children's ward, but the following is not far off the mark in many of our hospitals.

The room is vast. It contains twenty beds, spaced along walls tiled by Doulton or painted chocolate and yellow. The roof is remote—too remote for the cleaner's brush, and terrifyingly remote to the eyes of a child who lies many hours gazing at it. Some of the beds are three feet from the ground, to the pleasure of physicians and surgeons with ageing backs, but to the discomfort of the child who has not slept so far from the ground before. Many of these beds are protected by bars set close enough to prevent a child from lodging his head between and high enough to prevent him falling overboard. The beds stink just a little. Near the bed is a contraption, half-chair and half-locker, but it is beyond the reach of the child except by a contortion he cannot make so soon after his operation. He defeats this by concealing his personal treasures under his pillow until they are again put out of his reach. He solaces himself with comics or with paper and a scrubby pencil which he cannot sharpen.

He dislikes the pallid immobile child in the next bed because he is too young for companionship and too ill for talk, but, as is the way of children, he makes the best of it, and carries

on a conversation with a boy of his own age ten yards away over the heads of a whimpering baby and a plaintive 2-year-old standing behind the bars of his cot clad in a shapeless night-gown with a loose napkin sunk to his ankles below. This young child's plaint is not difficult to interpret. He draws the attention of a nurse busy with noughts and crosses on a temperature chart. She acts quickly, and then goes to other duties in the kitchen, where she floats mashed potatoes on plates of liquid mince. The children await their dinner, but are distracted by strange events. A white-coated young man arrives and descends upon the silent occupant of a bed who, knowing that her penicillin hour is at hand, breaks her silence in a four-hourly scream. There are other distractions at other times—the daily or twice-weekly promenade of an older man in black with a retinue of followers; the occasional quick incursion of a younger man more sprucely clad, who pronounces his decision with a "put him on the list for next Tuesday," the solemn visit of the matron, who passes from bed to bed with the same question on her lips at every bed; the arrival of an injured child at night; the piece of chocolate after dinner; the excitement of strange instruments which the doctors and nurses use but do not explain. Night comes on, but there is no bedtime story, no last moment of intimacy, no friendly cuddle before sleep. The nurse is too busy for that, busy with the noughts and crosses. This daily rhythm of anxiety, wonder, apprehension, and sleep is better than it sounds, because it is made tolerable by the extraordinary resilience and gaiety of the children at every opportunity. Their cheerfulness keeps on breaking through. But it is a deceptive cheerfulness.

In the hospital there are other wards like this, with a kitchen, a side-room, a linen cupboard, and an entrance corridor beyond which parents shall not pass. They have no treatment room, no laboratory, no accommodation for parents, no interviewing room. Each ward is under one black-coated man of authority, who, although devoted to his work, must delegate much of it to a white-coated resident. He has little time for companionship with his colleagues except in committee-rooms. His ward is his domain. If he is a surgeon it is a surgical ward. If he is a physician it is a medical ward.

Not all hospitals are like this. Some are better, but many others are worse, mainly because most of the clinical work is in the hands of people untrained in paediatrics or in the hospital-care of children. But I have drawn this picture in order to make concrete suggestions for its improvement.

Suggested Improvements

1. The clinical unit should be big enough to carry a trained staff sufficient in numbers for its varied duties, and working closely enough for the cross-fertilization of each other's minds in daily contact over their patients. For this purpose the unit should contain not less than fifty and not more than a hundred beds, which will be subdivided into smaller nursing charges.

2. The unit should be constructed not as isolated medical and surgical wards but as a combined clinical unit carrying both medical and surgical patients, in which paediatric physicians, surgeons, and specialists combine in their clinical work. In this combined clinical unit the children are placed in rooms or wards on grounds of their age, their temperament, and the nature of their illness, not divided into "medical" or "surgical" cases according to their need for operations. I shall return to this theme and its many advantages to patients, to nurses, to residents, and to medical staff. Having worked under this arrangement for many years, I and my colleagues, who have had a full experience of it, are convinced of its absolute value.

3. The unit should be arranged in rooms of five to eight beds, with at least one two-bedded room where, for special clinical reasons or for a companionship which is psychologically necessary, two children may be lodged. In addition, single rooms will be required for 5-10% of the total number of patients.

4. In each unit, or conveniently near to each unit, there should be a suite of special rooms in which, when necessary, a mother may live with, nurse, and care for her own child. She will do this under supervision of the trained staff. Five or more rooms of this sort will be required in a unit of fifty beds.

5. In each unit there should be a small self-contained traumatic department into which the injured child may be immediately received and treated.

6. In each unit there should be a treatment room in which all dressings, lumbar punctures, and other painful manipulations can be carried out, and where anaesthesia will be frequently used, particularly for the painful removal of dressings.

7. Each unit should contain its own laboratories in which the clinical staff can work and carry out such immediate laboratory examinations as are within their province. One skill enhances another skill. The clinician who has undergone a laboratory discipline and who himself continues, so far as he can, to use precise laboratory methods in his wards is likely to be a more accurate observer and a closer student of disease than he otherwise would be.

8. Each whole-time worker in the unit, whether he be house-physician or senior member of the staff, should have in or near the unit "a room of his own," however small it may be.

Medical Staff

The care and treatment of children in hospital demands from the medical staff more time and more attention to detail than does the care of adults. Therefore the primary responsibility for the immediate clinical work in a children's unit should be placed fairly and squarely on the shoulders of one person. In my opinion this should be a resident paediatric physician who has been fully trained before taking up the post and who will hold it for two to four years. It is exacting work, and two to four years is long enough for that kind of responsibility. The resident paediatric physician will require the help of other residents, one of whom will be experienced enough to be his deputy. In a busy clinical unit of fifty beds there should be at least three residents. There should also be a senior paediatric physician and his deputy who visit regularly and who are readily available for consultation. They will be responsible for ultimate decisions, for the maintenance of standards in the nursing and treatment of the patients, and for the promotion of inquiries into all aspects of the clinical work, from the control of ward infections to the control of admissions. In a teaching hospital where there are associated consultation duties, at least one of the senior physicians should be a whole-time member of the staff. Other visiting physicians, surgeons, and specialists should be members of the staff and visit regularly or be called in consultation.

This method of staffing is designed for a combined clinical unit, the value of which I press, because it is in such a unit that surgeons and specialists can most confidently place their patients, in the knowledge that the post-operative progress will be constantly supervised. In teaching hospitals and departments there are other compelling arguments for the combined clinical unit. It brings together in close consultation physicians, surgeons, and specialists over the large number of patients whose diagnoses are in doubt. It has the reciprocal action of enlisting the interest both of physicians and of surgeons in new subjects for research. It solves the problem of where to place the "no-man's-land" diseases such as general injuries and staphylococcal septicaemia with osteitis. It gives to the residents a wholesome clinical experience in differential diagnosis and the after-care of patients. No paediatric physician can practise successfully unless he be an authority on the diagnosis of appendicitis. No children's surgeon can confidently advise operation without considerable skill in the differential diagnosis of acute medical diseases, or without a knowledge of the use and misuse of modern methods of resuscitation. They will best get this experience and skill in a combined clinical unit of not less than fifty beds.

This staving of a children's clinical unit may sound extravagant. But is it so? Each town with a population of 250,000 will need a general children's hospital or department of 100 beds, an associated hospital for infectious disease of the same size, and a long-stay hospital of more than fifty beds. A town of that size will be spending not less than £500,000 a year on the public education of its children, and £40,000 or more a year on its child welfare services. Against these vast sums the amount which would be spent on paediatric physicians and surgeons is very small. But it must not be *too* small. We must escape the poverty-stricken attitude of a hundred years ago which still encumbers us.

Nursing

In children's wards the patients and medical staff are in the hands of their nurses to a precarious extent. Rarely in an adult ward does a patient die from a fault in nursing, whereas in children's wards it happens too often to allow us any composure of mind. The fault is not always obvious, nor is it always in the nurses. More often it is in the hospital itself or in the staff, who impose upon the nurses tasks beyond their capacity. The Paediatric Committee of this College in their recent report have shown where some of the faults lie; I need therefore say no more on that score, but leave it in the hope that the heavy hand of authority and precedent will be lifted by wise reform in nursing education. My purpose in discussing nursing is to draw attention to a more particular need, and one which is likely to increase in the future.

The most difficult and time-absorbing task in nursing is the care of the youngest children, who must be nursed, fed, and changed at frequent intervals of the night and day. If in addition there is much technical treatment the care of one infant becomes one woman's work. If there must be off-duty periods, it will be two women's work. If we introduce the three-shift system, it will be three women's work. While these infants are in hospital their mothers are at home suspended in anxiety. It would seem logical, therefore, that a solution of the problem should be found in admitting the mothers to the hospital to nurse their own children. This is no theoretical proposal. I have worked under this arrangement for many years, and I count it an indispensable part of nursing in a children's unit. Nor is it a revolutionary idea. By far the greater part of sick children's nursing is already done by mothers in their homes. Not all illnesses will be suited to this nursing, but the majority of all children under the age of 3 derive benefit from it. The mother lives in the same room with her child. She needs little or no off-duty time, because the sleep requirements of a mother fall near to zero when her own child is acutely ill. She feeds the child; she tends the child; she keeps it in its most comfortable posture, whether on its pillow or on her knee. The sister and nurse are at hand to help and to administer technical treatment to the child.

The advantages of the system are fourfold. It is an advantage to the child. It is an advantage to the mother, for to have undergone this experience and to have felt that she has been responsible for her own child's recovery establishes a relationship with her child and confidence in herself which bodes well for the future. It is an advantage to the nurses, who learn much by contact with the best of these women, not only about the handling of a child but about life itself. It is an advantage to the other children in the ward, for whose care more nursing time is liberated. In teaching hospitals it is of further advantage to the students, who gain a practical experience of the form of nursing they will depend on in their practices and learn to recognize the anxieties and courage which bind the mothers

to their children during illness: a lesson which fosters the courtesy on which the practice of medicine depends. I advocate this method of nursing, not on sentimental grounds but on the practical grounds of efficiency and necessity. Apart from all other reasons the shortage of nurses will impose this method on us in the future.

Care of Children in Special Hospital

About a third of Newcastle's children admitted to hospitals enter the fever hospitals. In some towns the proportion is higher. A considerable number of these patients are infants and young children, suffering from illnesses other than the acute specific fevers. Apart from diphtheria, which may justify this specialization of a hospital, there appears to be little reason for the sharp division between the fever hospitals and the acute medical sections of the children's department. A family is stricken with streptococcal infection. One boy develops a quinsy and stays at home; his brother has a sore throat with a rash and is sent to a fever hospital; and his infant sister gets streptococcal septicaemia and meningitis and is admitted to a children's hospital. An infant with infective gastro-enteritis which yields a dysentery organism goes to a fever hospital; another infant with gastro-enteritis which is equally infective but yields no dysentery bacillus remains in the children's hospital. Both types of hospital make their contribution to the care of children and the study of their diseases, but as time goes on each approximates to the other in its techniques and in the scope of its work. The corollary of this is that the staffing and nursing of both types of hospital should approximate also. The staffs of the fever hospitals should be trained as paediatricians and be specially instructed in the hospital care of children, and by contact with paediatric hospitals they should keep in touch with advances in the subject. On the other hand, the staffs of children's hospitals should know their fevers, and be *au fait* with all advances in their prevention and control.

So far I have been discussing institutions which are thoroughly familiar to us, institutions in which we live or work each day. If at times we tend to neglect the comfort and emotional welfare of the children in these institutions by leaving that responsibility to others, we are quickly brought back to reality by contact with questioning parents. I now pass on to another type of institution where the care of children is not so readily safeguarded. This is the long-stay hospital—the orthopaedic hospital, the children's sanatorium, and the like—where patients may remain for months or years, where the medical staff who dictate the length of stay may know little about the parents of the children, where the parents may never have the opportunity of discussing the effect of confinement on the future of the child with someone who has carefully considered that aspect of its welfare.

If Samuel Butler had extended his Erewhon to include this problem no doubt he would have said that a decision to restrain and confine a person for six months for a civil offence would be reached only after hours or days of careful consideration of the evidence by a judge and a number of other trained people, but that a child, on whom the effects of confinement are much greater than on an adult, could be committed to hospital for far longer periods with far less consideration of the evidence or the need. I have experimented in the domestic care and treatment of children with active abdominal tuberculosis, of children immobilized by orthopaedic appliances, of children with chronic disease which requires frequent observation and examination; and from these experiments I am convinced that too often and too lightly is the decision made to confine children in

long-stay hospitals. Sometimes the primary diagnosis is at fault. A child with coeliac disease may lie for months in bed under the impression that he has tuberculosis. Sometimes the assessment is at fault. A child with rheumatic heart disease may lie for months when he would be better gently idling about in his own home and garden. The crux of the matter is the careful ascertainment, before the child is admitted, of the clinical problem, of parental attitude, of their domestic circumstances, and of the conditions of the hospital to which it is proposed to send the child. This ascertainment can be made only by people with considerable clinical experience and knowledge of society.

Some of the long-stay hospitals have attempted to set their house in order, with partial success. But a long-stay hospital can never be completely successful in providing the things of which the child is deprived, whatever the educational arrangements may be, or however many their books, toys, and cinemas. These may mitigate the deprivation, but do not give the sense of personal attachment, the relationship, the companionship, which are necessary exercises for the mind of the growing child. I have had to listen to a great deal of evidence from men and women who spent much of their childhood and adolescence in these institutions. The sensitive and intelligent witnesses recalled with nightmare memories the long hours of winter evenings which pressed upon them in their adolescence, the aimlessness of their existence, the uncertainty of their future. They had their lessons each day, and raffia work and entertainments, but there was no intimacy with anyone who could explain to them the purport of their illness or encourage them with plans for the future. The fault lies in the form and arrangement of most of these long-stay hospitals. They have been conceived too much as medical institutions and arranged too much as hospital wards. It would be better if the children lived in small groups under a house-mother, and from there went to their lessons in a school, to their treatment in a sick-bay, and to their entertainment in a central hall. There would be no disadvantage in the house-mother having had a nursing training, but that in itself is not the qualification for the work she will do. Her duty is to live with her group of children and attempt to provide the things of which they have been deprived.

I must consider one other type of hospital, which will bring me full circle to Charles West again. He left obstetrics to concern himself with children's hospitals. So it is not inappropriate that a children's physician should turn for a moment to maternity hospitals, for in these places one-third of the children of the country begin their lives.

So far I have been suggesting that many of the faults in our hospitals are due to poverty-stricken ideas, which took their origin a hundred years ago, and to a formal method of construction and staffing which precedent has laid upon them. This is as true of maternity hospitals as of others. Some are now escaping from poverty and are much gayer than they were, with coloured oilcloths, stainless steel, and plate glass, but there has been little reform of essentials.

What are these essentials? I take it that the function of a maternity hospital is to deliver a woman safely of her child, and afterwards to care for them in such a manner as to ensure their health, to establish their intimate and interdependent relationship, and to leave the woman free from the fears of having another child. Our maternity hospitals are ensuring the safe delivery of a woman to a greater and greater degree, but are they fulfilling the other two functions?

I know maternity hospitals which are the hygienist's dream of perfection. The women lie for their ten days in immaculate beds placed equidistantly along sterile walls. Their ward is a picture of calm repose and passive immobility. You ask what has happened to create this atmosphere of silence and subdued conversation and fail to get an answer; but the truth is that the mothers are mystified by an arrangement under which their babies have been taken away from them at the time when, at the end of nine months' waiting, they had expected to possess them. The babies are in cots set in rows in a room along the corridor beyond their earshot, out of sight but not out of mind. At regular intervals of the day they are placed on a trolley, wheeled along the corridor, and with the ringing of a bell which announces that milking-time is at hand, they are delivered by a masked woman to another masked woman at the door of the ward in which the mothers wait. Milking-time over, the babies are re-embarked for their nursery where they are solaced with sugar and water.

This, surely, is physiologically wrong. I and many of my colleagues have the advantage of working in maternity hospitals where, throughout the puerperium night and day, mothers and babies are kept within reach of each other, where the mother may pick up her baby when she desires, where everything that is done for the child is done within sight of the mother at her bedside, and experience shows that with simple precautions not only is the danger of neonatal infection less than it otherwise would be, but breast-feeding and the relationship between mother and child are firmly and safely established in a physiologically natural manner.

Co-operation between obstetricians and paediatricians is now becoming close, but concerning this I have one piece of advice to offer. It is next to useless to enlist the services of a paediatrician in a maternity hospital only to visit occasionally and give advice on sickness. In a maternity hospital of any size there should be an experienced paediatric physician who lives there, or visits each day regularly and punctually. It is his or her duty to prevent and treat sickness in the children, and to apply a knowledge of human biology on which the relationship between mother and child is founded. The paediatric physician will have his own technique of ward rounds, of control of infections, of treatment of disease, all of which demand a special knowledge. In smaller hospitals which cannot find such an experienced person for their staff, at least one of the obstetric officers should have a training in this branch of clinical work and human biology which fits them to supervise that aspect of child-care.

Conclusion

Although I may have failed to make it clear, the tenor of my discourse has been that the care of patients in hospitals is a subject which demands scientific study, and experience based on such study, and that the need for this is greatest of all in children's hospitals. A children's hospital is an instrument of medical treatment. It is a highly specialized instrument, and its arrangement must be constantly altered and adapted to meet changing needs. It is also a dangerous instrument in the hands of those who do not know how to use it.

These difficulties and dangers should be exposed in constant inquiry and discussion, and corrected by research. For this purpose some members of the profession, themselves experienced in the work of children's hospitals, must make themselves expert in the physical examination of institutions. No amount of administrative or clinical experience alone will fit them for that work.