2nd Edition

Paediatrics

John Apley

Concise Medical Textbooks

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SECOND EDITION

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Preface to the First Edition

This book is written first and foremost for medical students of the 1970s. All the same I should like to think it may interest many doctors by reflecting the great progress of recent years, not only in factual knowledge but in fundamental attitudes.

I hope it will come the way of students when first they turn to paediatrics, after being shown the basic principles of adult medicine. At this stage selective paediatric teaching, taking account of what has already been presented, is able to save time and words. It can concentrate on what is different about children. A paediatric book should not be just a modified version of an adult one—Daddy's suit cut down for little Johnnie to wear. The first unorthodoxy in this book on fundamentals of paediatrics is a deliberate emphasis on important *differences* between adults and children.

Second, if the doctors of the future ought to be shown the ways in which adult and childhood medicine are dissimilar, they should also be shown how tiny, middling and big children are liable to different disorders and how they can react in different ways even to the same disorder. It seems to me that students should see the evidence, at an early stage, before attitudes and habits of thought become less supple.

Growth influences disease, disease influences growth; and the quintessence of paediatrics is growth, physical and non-physical. If growth is generally regarded as a rather dull subject, is not this because it is separated from disease processes which to students at least seem more exciting? To teach growth, those familiar, stale pictures of dismal dwarfs, cordoned between graphs in one or two isolated chapters, are

not enough. So a third variation of emphasis attempted in this book is the use of growth with age, not just once in an introductory section but, time and again, as building material in the chapters on diseases.

One of the things I have learned from medical students in various parts of the world is that many are scared at the thought of trying to elicit physical signs in small children; it is not surprising, then, if they are bad at it. So in the clinical sections I have tried to advise on methods suitable for examining children. A few of the methods described are my own—they happen to suit me—and I hope their example will encourage students to experiment, to try to find or evolve the methods best suited to their own style. As for treatment, I have deliberately not gone into detail, since it is forever changing. Anyway, I believe it should be indicated only in broad outline in the early stages of training, for fear of inculcating an uncritical reliance on drug treatment. I have seen too many students start dedicated but end medicated!

Whilst I like books and teaching aids (and the book-worms and tape-worms who use them diligently) I am sure that the best gymnasium for medical knowledge and skills is round the patient. This book is an extension of the cot-side and clinic teaching that I have enjoyed with many students; and it is an account in which I do not even pretend to be impersonal.

I hope readers will find here a good deal about children, as well as about their diseases; and about whole children, not merely bits of them. No, this is not intended as a synopsis or potted 'diseases of children'. Since it is just as certainly not meant to be a comprehensive reference book, it was no hardship to leave out tsutsugamushi fever, the 'whistling face' syndrome or the Undritz anomaly. While many small-print diseases have been jettisoned, some others are included either to illustrate important points or, let me confess, simply because for teaching I find them hand-rubbingly irresistible. And it would have been mean to leave out all the problems and arguments and tidbits that so enliven paediatrics. I hope something of its excitement, of its unique feel and flavour, will be recognized by seniors as well as juniors in the following pages.

December 1972 JOHN APLEY

Preface to the Second Edition

Optimism is infectious and paediatricians tend to catch it from their patients. My chronic optimism was encouraged by the pleasing response from readers of the first edition, and the reprint, in which I tried to teach 'diseases' and at the same time to show that the child is not just a mini-adult. Childhood is change. We need to use our understanding of growth and development to help the child, when he is ill and when he is well.

For this edition, tidying up and updating have been done, with some welcome advice from colleagues in their own specialist fields. Even with a new chapter (on Ecology and the Child in the Community) the book remains fairly slim because almost all the ingredients are basic. I hope that the way they are served up will stimulate the reader's appetite for going on to learn more.

Factual information is inescapably important: what is equally important is the way in which students are introduced to facts and learn to handle them. So the essential data are given throughout the text, but not merely as an exercise for unthinking memorization. With the necessary information go comments and discussion relating to clinical aspects. The chapters aim to show (painlessly, I hope) how to use the fascinating material of paediatrics, not only to pass examinations but also as a tool to work with after examinations are over.

I should like this book to be regarded as an invitation to take an active (and enjoyable) part in learning about children's diseases, without ever losing sight of the children who get them.

August 1978 JOHN APLEY

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Contents

1 You and the Child in Hospital

Patients in the Wards

Before military students grapple with guerilla warfare they study set-piece battles. These seem more leisurely and predictable; the enemy is conveniently concentrated; reinforcements – and the big guns – can be moved up when needed. For similar reasons it is easier for medical students to start by studying patients in hospital wards rather than in the outpatient clinic or in the home. You have more time to follow the medical manoeuvres concerned with diagnosis and treatment. You can think and read round what is happening. You can ask questions – not only of others but, even more important, of yourself.

When patients are lying in bed they are almost inviting you to examine and re-examine them. This is a convenient time for you to practise and gain confidence in the basic methods of clinical medicine, which will prove of lasting value to you. You will also read up diseases, though after a while you will want to go further, bearing in mind that diseases do not exist in a vacuum. They occur in people – men, women and children – who come to doctors for help and who need understanding. Studying patients in the wards is essential, yet it is only a beginning. It is like studying specimens in the zoo: you cannot know what the creatures are really like unless you observe them also in their natural habitat.

Children in Hospital Wards

Moving on from adults' wards to children's wards you will certainly see and hear (you may even smell!) much that is different. The more modern the children's department, the more obvious will be the differences in appearance and in atmosphere. This has not always been so. When children were thought of and treated as miniature adults their wards were replicas of adult wards. A famous lecture describes dramatically what children's wards were all like a few years ago and, unfortunately, still are in some 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 nightgown 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 young 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.

(From 'The care of children in hospital' by J.C. Spence, *British Medical Journal*, **i**, 125, 1947.)

It has taken many decades of thinking about chidren in hospital for us to recognize and correct some glaring mistakes, whether due to lack of knowledge or lack of money; but you may see others still being made. Mention can be made of one which is common in the most progressive and wealthiest countries. The adult patient may demand privacy, and pay for it; but for the child patient solitary confinement is wrong. The grandest TV set does not make up for the child's loneliness and deprivation in a room set apart (Plate I/1). Even the presence of a parent, undeniably important though this is, is not a complete answer to all the problems of the child shut away from other children and grown-ups. (For child–mother separation, see p. 399 and Table 42.)

Thinking about a truly up-to-date ward for children is worth your while because it brings out important differences between the needs of adults and children. Starting with the almost too obvious, younger boys and girls share the same ward. Of course the beds are small by adult standards and they may have sides which are pulled up, because small children need safeguarding. Informality is the rule and homelike untidiness is not a crime.

There are toys all over the place; play is essential for children, partly to prepare them for the serious business of adult living and partly to help them to live out some of their anxieties. Unless they are acutely ill, the children spend much of their time out of bed. Older children are given some schooling in hospital; learning interests them and is part of growing up, and when the child returns to school he would be at a disadvantage if he had fallen far behind with his lessons. In paediatric wards parents stay with their children as much as possible, to give them personal affection and to minimize their insecurity at being removed from home; otherwise the disturbance may hold back their progress and can have undesirable effects even after their return home.

You will see that the doctor looking after a child in hospital takes the history largely or entirely from the parents rather than the child, and when he examines the child he does so with their cooperation, making friends with parents and child as a preliminary. You may think that doctors in children's wards are atypical in being informal and friendly, but they cannot get on well with children if they are pompous or if they use long or stilted words. When they examine patients they are specially gentle. They avoid abruptness in their actions and explain what they are about to do in carefully chosen words. They familiarize the child with instruments and medical gadgets before these are used. There are more nurses than in adult wards (because children need so much more feeding and attention to their other needs) and they too cannot afford to be starchily dignified. The radiographers have a friendly and playful approach to the children. So have the laboratory technicians, and for many investigations they use micro-methods for obvious reasons. (Why should we not use the term *micro-methods* to describe *all* the techniques of getting on with children?) Even the porters and cleaners are kindlier and more approachable. All the people working in a children's ward tend to be smiling and friendly; we seem to catch optimism and cheerfulness from our small patients and our jobs become more enjoyable and more efficient.

As compared with the old-fashioned ward, a modern ward

for children is geared to meet not only the needs of doctors and nurses, but also – and this is new – those of children. It feels better and it works better. It is less disturbing* to the child and his parents, yet at the same time it produces results which are more reliable and complete from the medical point of view.

Different Age Groups

Newborn and other small infants are traditionally cared for in cubicles or rooms separate from older children, not only because they need special techniques of feeding, nursing and treatment but because their resistance to infection is still underdeveloped. Some hospitals have separate wards for adolescents, because they are different both from small children and from adults and they have their own special needs. Between these two ends of the scale you may see wards set aside for children aged 2–5 years, 5–10 years and so on. It seems reasonable to organize a ward for children of roughly the same size and physical needs and with similar non-physical needs and interests, who think and feel, behave and react and play in the same sort of ways. The physical changes which go with age and growth are only one aspect of changes which are occurring in several dimensions (see Chapter 3). Of course, it must never be forgotten that, over and above the obvious variations between individuals, children in one age group differ tremendously from those in another. A child changes continuously as he grows and develops. There are greater differences within the paediatric range than in the whole of the adult range.

Children in hospital are occasionally grouped in an interestingly different way, though its value has still to be assessed. In one ward, preferably not a large one, two or three of the children may be 10–12 years old, two or three may be 6–9 years old, while the remainder are of varying ages down to

*What may be called 'weaning the child from hospital' is one illustration. As a child nears the end of a lengthy stay in hospital one may suggest that he be taken home by his parents for an afternoon, then for a day, a day and night, a week-end–though always with the parents' understanding and agreement, and the child's too if he is old enough.

infancy. This 'family group' arrangement is an experiment to try to make them 'feel more at home'. It is also a useful reminder that nobody can understand a child except in the context of his family.

In the Out-patient Department

In the out-patient department it is easier to see beyond the illnesses on which you concentrate in the wards, easier to think more about the children as individuals and parts of a family. So in the clinics you should take the opportunity to observe how experienced doctors get on with children and parents, and how they deal with the difficult or unexpected situations which are a fascinating part of medical practice. This can be more like the guerilla warfare which was mentioned at the start of this chapter.

The child comes to a clinic with one or both parents, and perhaps a brother or sister or grandmother for good measure. Even with the sensible modern appointment systems they have to wait a little, while documents are being sorted, until their turn comes. While they are sitting or running about, talking or reading or playing with toys or sipping a drink, you have the chance to observe them. This if often a good time to assess what are rather stiltedly called 'interpersonal relationships'. When the child is later brought into the doctor's room he may withdraw into himself, or into his mother's arms, and some important clues may be hidden.

To the students who are with me at the start of my clinics I try to make a habit of saying '*If any child cries it is my fault*'. True, the child may cry because his father unwisely threatened him with hospital, or because when he arrived he was too hurriedly 'wee-d and weighed', to use nurses' amusing jargon. He might even cry because he is in acute physical pain with otitis media or scurvy. But because of the attitude which this remark implies it becomes very rare indeed for any child to cry or prove difficult to examine. According to the hymnal, 'cherubim and seraphim continually do cry', but, unlike children in clinics on earth, cherubim and seraphim have no need to be palpated and auscultated.