Personal Paper

Care of children in general practice*

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When I began in general practice 25 years ago, it was held that maternity care was the foundation on which general practice was built. To a degree this is still true, except that today what matters most to the GP is not the actual delivery but the health of the child himself. In Britain one-quarter of all general practice consultations are concerned with children. GPs are consulted about children over 50 million times each year; that is 2000 consultations a year for each GP; 40 a week, or eight each working day.

Knowledge and experience

Skill is a mixture of knowledge and experience. GPs can acquire knowledge but may lack experience of the less common childhood illnesses. The average GP has 2500 patients, of whom about 500 are children under 15 years. The average American primary care paediatrician looks after about 1000-1500 children. The British paediatric specialist, who sees only patients referred to him, is responsible for between 20 000 and 100 000 children. An average GP will see only one case of pyloric stenosis in 12 years; the American paediatrician will see one every five years; but the British paediatric specialist will see about five a year.

Many GPs will never have a diabetic child on their list throughout their career, and most will have only one at a time. Not surprisingly, therefore, few GPs have much experience in advising diabetic children and their families. Indeed, it is usually the child who knows most about his illness.

No one doctor can obtain sufficient experience to become expert in all branches of medicine. Our experience, and hence our skill in general practice is with everyday problems. We see more people with coughs, colds, and sore throats than any specialist. We see more cases of acute otitis media than most ENT specialists, and not surprisingly some advances in managing acute otitis media have come from general practice.

A specialist's view

The other side of that coin is that the specialist can acquire an extensive experience of the rarer diseases and so act as a true consultant. He sees relatively few of the everyday problems.

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The amount which British GPs contribute to the care of children is not always recognised by those working elsewhere. Many children under 5 years attend outpatients and casualty departments, but the proportion relative to the number seen in general practice is less than at any other age, except among those over 75.¹

That parents will often want a second opinion is well known to GPs. A common reason for referral to a specialist is to confirm a diagnosis made by the GP. Writing about his experience as a clinic medical officer,² a role he took up when he retired from his university chair, Ronald Illingworth says—and I agree with him: "The clinic doctor is in an ideal position to allay patients' worries." He then comments that the family doctor is often too busy and has a long waiting list. I would hope that few GPs do what Illingworth implies and refuse to see a mother when she is anxious about her child. It is perhaps not too late for the professor to take the road to Damascus—or a train to London, or even a local bus ride in Sheffield—and learn something about good general practice. If he visits a general practice he will often hear the GP give a second opinion on a view expressed by a clinic doctor. Perhaps he could come with us on a house call or, even better, on a night call when we are asked to allay the parents' fears after mother has told father what she thought she heard at the clinic. I am sure he is aware that, however well a doctor tries to explain a problem, by the time information has been passed on by the mother for the third or fourth time it will come to resemble the apocryphal first world war message from the front line: "Send reinforcements; we are going to advance," which came back as "Send three and fourpence; we are going to a dance."

GP advantages

Because we provide continuing care we can become experts in the natural history of disease, which is not possible for the physician who provides only episodic care. We can also learn about early symptoms and signs of disease. We can study the effect on an apparently healthy child of illness in one or both parents; and the effect of a child's illness on other members of his family: in particular the effect of a chronic illness, such as cystic fibrosis, in one child on a healthy sibling. We can see the problems of being the mother or father of a child with chronic illness. We are specialists in treating patients in their own home, and we are also the doctors most closely associated with preventive medicine.

For most people admission to hospital is a major event, especially so for a child, for many of whom it may also be emotionally hazardous. I am concerned about the unnecessary admission of children to hospital. How can we decide whether or not a child should be admitted? To make such a decision, the doctor has to ask himself certain questions. Firstly, can the necessary diagnostic tests be carried out if the child is not admitted? The occasions on which a child needs to be admitted

from my practice for diagnostic procedures are few. Secondly, can the child be managed at home? The doctor best able to answer that question is the GP. In Britain today social factors are a common reason for admitting a child to hospital.

Respiratory tract infections

Disease of the upper respiratory tract is the commonest illness seen in children by the GP. This is true in every country where there are primary care doctors. Most of us, GPs and paediatricians alike, are in full agreement that the respiratory tract is one of the most important parts of the child's anatomy. Why then are diseases of this part of the body so poorly understood? For example, though the diagnostic labels "pharyngitis," "tonsillitis," "common cold," and "influenza" can each be defined, clearly doctors often use these terms interchangeably.

The nomenclature of lower respiratory tract disease is even more muddling. Sometimes the diagnostic labels are based on pathological changes that can be demonstrated only postmortem. In life we often have to rely on guesswork for the diagnosis. The respiratory tract is one unit, and the absence of signs in the chest is by no means proof that the illness is confined to the upper respiratory tract; nor does a clear chest x-ray film indicate the absence of lung disease. In practice, the diagnostic label may change during the course of an illness, as further clues to the aetiology and pathology come to light. Though our final diagnosis may be accurate, what matters most is the action we take during the illness; in particular, the management plans we make when we first see the child.

If we investigate fully the microbiology of an outbreak of respiratory tract infection within a family or other closed community, we may well identify the same virus producing, in different members of different ages, the common cold, pharyngitis (which often looks like tonsillitis), tracheitis or laryngo-tracheobronchitis, bronchitis, broncheolitis, and lobar pneumonia.

Ear infections

Very often a child with a red eardrum will also have a red throat—and vice versa. Otitis media has always held a fascination for me: the textbook description that I was taught did not seem to match the clinical picture I saw in the children under my care. I was taught that the early stages of otitis media could be recognised by the appearance of a leash of blood vessels along the handle of the malleus and around the periphery of the drum. As the infection proceeded, the drum began to bulge and then burst, leading to either resolution or chronic otitis media. In the 1950s we witnessed the appearance of catarrhal otitis media and glue ear, diseases that were apparently new and alleged to result from incompetent treatment by the GP of acute otitis media with antibiotics and sulphonamides. Some otologists incriminated antibiotics; others blamed the use of sulphonamides and said that penicillin should have been given; while yet others attributed the condition to the use of penicillin for too short a time.

Yet, textbooks of otology written 100 years ago, long before antibiotics appeared, describe the condition. For reasons which I do not understand, the condition seemed to disappear for the first 50 years of this century. Like scarlet fever, I suspect that glue ear goes in cycles.

Pertussis

I suspect, too, that pertussis goes in cycles. It has never been easy to culture *Bordetella pertussis* but, when I was working in a hospital paediatric unit in the early 1950s, we accepted a high

white cell count with a relative lymphocytosis as alternative proof of the diagnosis. By chance, this was the time when pertussis immunisation was being introduced in Britain. A few years later I went into general practice. It was even more difficult to confirm pertussis bacteriologically, and no longer did all the children who whooped have an abnormal white blood cell count.^{3 4}

The recent epidemic of pertussis further emphasised this diagnostic problem, particularly as some younger doctors had never seen a child with whooping cough.

Tonsillectomy

Knowledge of the role and function of the tonsils has also improved. Fifty years ago the tonsils appeared to serve no purpose. They were there for ritual sacrifice. The first research paper I published was on the prevalence of tonsillectomy, circumcision, and appendicectomy among RAF recruits.⁵ Almost one recruit in three had had his tonsils removed. Furthermore, if the school attended and the age of leaving was any criterion of social class, the higher they were up the scale, the more likely they were to have lost their tonsils, appendix, and prepuce.

Why is tonsillectomy so popular? What are the indications for the operation? Studying the pathways that lead a child to the operating table, you may well discover what might be called a "collusion of non-responsibility." What happens, at least in Britain, is that the general practitioner refers the child to an ENT specialist for advice about recurrent attacks of tonsillitis. The surgeon examines the child. With rare exceptions (TB cervical adenitis is uncommon these days) there is no objective evidence on which the surgeon can base his decision; tonsillar size is irrelevant. So the surgeon must form his conclusions from the history. The GP said that the child has frequent attacks of tonsillitis, and the mother confirms the story. The surgeon feels he has no alternative but to recommend surgery. Indeed, were the facts true, his advice would, in my opinion, be right.

But are the facts true? Has the child had recurrent attacks of tonsillitis? In my opinion, true tonsillitis in children is not a common disease. When the child has an upper respiratory tract infection, his nose is more blocked than usual; he mouth-breathes and so gets a sore throat. But that is not tonsillitis. The pharynx may be red; it often is in an upper respiratory tract infection—but that also is not tonsillitis. We may even grow haemolytic streptococci, but I am no longer sure that the presence of streptococci in the throat necessarily indicates tonsillitis.

So I do not tell the mother that her child has tonsillitis. Instead, I show her the catarrh blocking his nose and explain that is why he has a sore throat. Had I called these attacks tonsillitis, then sooner or later someone is going to want "something to be done," and that something will be a tonsillectomy.

Asthma

I relate asthma to tonsillectomy, because in my experience, it is a common complication of tonsillectomy in a child who is catarrhal because he is allergic. The greatest difficulty with asthma is our inability to produce an acceptable definition. None of us has any difficulty in making the diagnosis in status asthmaticus; the problem is what do we call the milder cases.

As a GP I see the problem from a different angle. What matters is not the label we apply to the condition, but the treatment we prescribe. I do not mind whether we call it asthma, wheezy bronchitis, or a squeaky chest; in my own notes I often call it "rhonchitis." The name is unimportant so long as the doctor acknowledges that an antispasmodic will be both more effective and less likely to produce adverse effects than an antibiotic.

In adults and older children the sound of asthma heard through the stethoscope is the rhonchus, but in young babies rales are just as likely to be heard. In fact, so far as I am concerned, every child with a recurrent noisy chest is asthmatic until proved otherwise, which means that my treatment is modified accordingly. I find that antispasmodics are often just as effective in children with recurrent rales as they are in children with rhonchi, and that antibiotics are rarely necessary. For most children and adults I rely mainly on theophyllins, which I prefer to the newer range of antispasmodics. For the more severe attacks I recommend two prednisone 5 mg tablets to be taken at night, but for no more than two nights. Used in this way there is no need to scale down the dose, and the course can be finished in less than 48 hours. Of course, I occasionally see a child who requires a full course of steroids, and he will almost certainly be admitted to hospital.

Very often intrafamily anxiety accompanies asthma, and I may try to break that cycle by giving the child diazepam at night, for a night or two at most. Sodium cromoglycate is, of course, an excellent prophylactic but only an obsessional child will, when he is feeling well, puff the contents of one capsule four times a day. In spite of theoretical arguments to the contrary, I find that once or twice a day is enough to reduce the attack rate in most children and, anyway, that is as often as most of them will do it.

Illness in the family

Another favourite hobby-horse of mine is the child as the presenting symptom of illness in the family. There are various manifestations of this. An obvious one is the night visit—"Dad's home from the pub syndrome." "Where's my supper?" he asks querulously. "There isn't any," says his wife. "Why not?" he asks. "Because the kid's been screaming all day." "Well, if the kid's not well why don't you get the f...ing doctor?"

So off I set at night to make the house call. My aim, having made my diagnosis, is to provide a little education. I do not, therefore, offer the mother a drug for the child. That would merely confirm in her mind, and in the mind of her husband, that the visit was necessary. Furthermore, it would encourage them next time the problem arose to call me out again. Nor do I criticise them for calling me out unnecessarily: for that would only antagonise them, and I have long since learned not to tell people off in their own homes. So what I do is say something like: "Fortunately the child is not seriously ill. If you're still worried in the morning, bring him along to see me at the surgery."

A few years ago I described the syndrome of the vomiting baby as the presenting symptom of puerperal depression in the mother.⁶ Possetting is common in babies, and yet the paediatric textbooks rarely explain it in a way that matches my experience. Sometimes the possetting is extensive: the child ruminates almost continuously between feeds. The more depressed is the mother, the more ill does the child seem to her. But ill is the wrong word in this context, as usually the child is contented and gaining weight. Because the mother is depressed she feels that everything around her (including the child) is bad. Perhaps she also feels that in some way her baby is criticising her: criticising her for the way it is being fed, and criticising her for being what she is.

Perhaps the child does have a hiatus hernia, but this is irrelevant as rarely is it necessary to intervene medically or surgically. I am not impressed with the effect of thickening the feeds, nor do I find special feeding chairs of any value. I tell the parents that the possetting will almost certainly stop before the baby is a year old. So far all the children in my practice have done so, except one who went on possetting extensively till he was 15 months old. I am waiting to see if he is going to be slow in the rest of his development.

Developmental assessment

Another hobby-horse is developmental surveillance or developmental assessment. As GPs, continuing care of the child and family gives us an advantage as we do not have to do all the tests appropriate to that age at one time. We can take the opportunity presented by an attack of otitis media to check the hearing, or examine the hips of a child with a nappy rash. If these are normal then we need not repeat that test at the next formal developmental assessment. Sometimes a complete check can be carried out at the same time as the child is being examined for an intercurrent illness, so saving time for both mother and doctor.

In hospital, medical students are taught about patients with the more serious diseases. The first duty of a physician is to recognise any deviation from the norm, but to do so it is essential to identify the range of normal. For instance, I was not taught the development of normal posture and had to learn it the hard way. Elsewhere I have written,⁷ "Children learn to stand and then to walk at some time between the ages of six months and two years. There is considerable variation in the age at which they start to do this. Some very intelligent children are late starters and many children who are not so bright are early walkers. The natural stance of a child who is learning to maintain the balance is for the feet to spread apart and turn out (metatarsus varus). In addition, the distribution of fat in an infant's leg is not the same as in an adult. In a healthy child both the thighs and calves are relatively plump and the medial metatarsal arch is filled with a fat pad. The effect of the fat distribution on the posture is to give the child the appearance of flat feet, knock knees and bow legs."

Looming on the horizon is a new aspect of preventive paediatrics: the possibility of being able to influence the morbidity and mortality patterns in later life. I have not been impressed with the results of our efforts to control our patients' blood lipid concentrations, but I wonder whether if we turned our attention to the effect of better dietary fat regulation in infancy we might achieve something more worthwhile. Unfortunately it will be a long time before we know if these efforts will bear fruit.

Conclusion

There is a need for more education on the care of children in general practice. Part of this training can only be given by those who have had experience in the aspects peculiar to general practice—that is, by GPs. Specialist paediatricians will also have to learn more about primary care paediatrics. This means they will have to receive some of their training from us. Where better to start than at the top? If the consultants learn something about this aspect of medical care, then that knowledge will rapidly spread through the ranks of their juniors. If we are only allowed to teach the students and housemen, then it will take a generation or more for this new knowledge to be disseminated, and I do not think that the child health care programme in Britain can wait that long.

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