opportunities in or around the now familiar practice area. Our two young children had intensified our desire to settle permanently. I learned that a consultant obstetrician in the village had a partner in a two man practice in the adjacent town was leaving. Using his introduction, I contacted the senior partner. The premises by present standards were small but really quite advanced for 20 years ago. After all, we had an office-reception area, a separate examination room, a receptionist cum secretary, and a clean and bright door.

My charming and energetic new principal, who lived on the premises, believed that a high standard of medicine should be rewarded with a good income. He had acquired his MD while building up the practice from 900 to 4500 patients. Although the initial offer was of a partnership in 12 months to be followed by parity in five years, we finally agreed on six months as an assistant and parity in only four years. Within a week of the interview the letter setting out these terms was in my hands. There was no deputation service in the town and I readily accepted that I would be on call three nights a week. I also recognised that when the "practice" was on weekend call it would be me who would be primarily responsible for the work during the time that I was an assistant. We were fortunate to have a weekend and sickness scheme in which 16 of the principals from other practices participated.

I started this new job at the end of September 1963 and by April 1964 I was at last on the list of a family practitioner committee with over 1000 patients to my name. In July 1964, after having lived in rented accommodation for five years, our seventh home was the first that we had owned.

One of the conditions of the partnership was that I would have to purchase a progressive share in the property as I moved towards parity. The financial commitment of setting up a new home together with buying into a partnership left me no alternative but to approach a bank. I remember being surprised at the fact that although I was a young doctor on the list of a family practitioner committee with excellent future prospects, this did not impress the bank manager, who had observed my overfard progressively increasing during the previous three years. I merely wished to extend my debt from £150 to £2500. I had great satisfaction in telling him that if he did not wish to finance me I would take my business elsewhere.

It was with surprise, bordering on panic, that I heard the second bank manager express some doubts as to the wisdom of extending my credit without collateral. Fortunately, the partnership account was held at this bank and my new senior partner was prepared to put up my half of the practice premises as collateral against a loan that I would be able to repay over the next five years.

As well as this gesture of confidence, I received much good advice from my new partner. He reassured me that I would make a good general practitioner by the time I was 35. I measured this against the earlier advice that I could achieve consultant status by the age of 32, and it was not until I reached the age of 35 that I realised there may well have been some truth in his words.

Early 1960s

The early 1960s were hard times in general practice when many doctors were oppressed by the volume and type of work they had to do. Premises on the whole were inadequate and ancillary staff support was patchy. Appointment systems were the exception, and in many cases did not work when they were tried.¹ It was the pre-1961 era—before the true emancipation of women and the Abortion Act had not yet become law. Reputing systems were yet to appear on the scene, and the use of repeat prescription cards was somewhat frowned upon.

I passionately believed that general practice could be changed for the better. After all, it seemed to me to be the most satisfying and relevant form of medical practice. I became an associate member of the College of General Practitioners and I was asked to attend the local medical committee meetings. I became

concerned in the social activities of the BMA, which then had an important educational function since there were no post-graduate medical centres, nor indeed section 61 payments. I also became a member of the General Practitioners' Association, a now little known organisation that, unhappy with the establishment, strove to provide its own evidence for improving general practice. I had to face the question of whether it was better to work for change from inside the establishment or whether more would be achieved by creating a rumpus outside. I chose the former and in this suffered the fate of many revolutionaries by becoming imperceptibly part of the establishment.

This was the era before the primary health care team and attachment of other health professionals. We rarely saw the district nurse unless she happened to be visiting a patient's house at the same time. The health visitor was an intruder, giving contrary advice and someone with whom we were unable to speak, except perhaps through the medical officer of health. The midwife, however, was different. We saw her regularly at home confinements, although she did not attend the surgery and held separate antenatal clinics in the somewhat primitive local authority buildings. Social workers as such were unknown, although mental welfare and child care officers commanded great respect. Cooperation, or lack of it, was never an issue.

Another impressive feature of my new partnership was the routine use of records. In some practices it was not unknown for medical record envelopes never to be taken out of the shoe boxes under the consulting room desk. A new doctor entering such a practice had to depend upon the patient's memory to prescribe medication and to determine the medical history. In 1964 I acquired a clinical assistantship in the local casualty department which encouraged my links with the hospital and helped overcome the artificial divide that existed between hospital and general practice.

The family doctor "charter" in 1965 provided the encouragement to many doctors who were struggling to achieve a rightful place for general practice within the National Health Service as a whole. From those early beginnings when practice premises were underdeveloped and often uninviting, when national insurance certification was an unquestionable burden, and when to enter a vocational training scheme was but a insecure for the inadequate, the face of general practice has changed out of all recognition. There is no question that it has changed for the better.

References

- 1 Parkhouse J. Career intentions of final year medical students. *Health Trends* 1981;13:29-35.
- 2 Jenkins SGP. A critical assessment of appointment systems in general practice. *Practitioner* 1967;199:304-9.

Diary of Urban Marks: 1880-1899

In those days there were no clinics of any kind. Davies used to do operations such as hernia at the patients' homes at a charge of sixpence for tonsils for removal. Dr Brynmor Evans had taken over Dr Brice's practice at Landore and the three of us would start out on Sunday morning at 9.30 and assist one another at the various cases we had each of us picked up during the week. If for a tonsil case the doctor in charge of it could get two guineas, the anaesthetist got half a guinea for his trouble and the three of us would divide the rest. The anaesthetist got one guinea. For the major operations the fee was a guinea. We took turns to give the anaesthetic and to assist, for which of course no fee was forthcoming. The anaesthetist worked until 1914, which year saw the breaking up of a good many things in general. However, our unofficial partnership was a very happy one while it lasted.

practitioner must consider. This was not a new concept at the time that this paper was published, but since then prescribing an antibiotic to a child with an upper respiratory illness has become, for me, a warning signal, an alarm bell, an indicator to look beyond the child to the other members of his family, and especially to his mother, and to seek the psychological and social factors there that may have precipitated that particular consultation.

John Howie's work on respiratory illness has done more than help us to understand these conditions. He has shown that it is possible in general practice to take a common problem, one that many would regard as unexciting and rather a chore, and by examining it in depth come to understand more clearly the ways in which our patients, and we ourselves, behave. He has shown how the management of respiratory illness can become more exciting for us if we choose to open our eyes and ears, so that the care we offer our patients can become more effective. There must be other such common conditions whose study could be as rewarding.

GLUE EAR

The second of my papers relates to a complication of upper respiratory tract illness—glue ear, and was published in the *Journal of the Royal Society of Medicine* in May 1978 by M J K M Brown, S R Richards, and A G Ambekar.¹ The paper was a report of a five year follow up of a controlled trial of grommets for glue ear.

I found this paper helpful for several reasons. Otitis media and some degree of conductive hearing loss is common in my practice, and deafness in children is disabling, leading to difficulties in speech development and learning. Also, I liked the design of this particular study which analysed the results of managing serous otitis media in matched pairs of ears by inserting a grommet in one ear and carrying out no operation in the other. In other words, each of the 55 children in the study was his own control—near use of a paired organ for study and control groups.

All the children under adenoidectomy and at random selection a Shepherd grommet was inserted into only one ear. Pure tone audiometry follow up was carried out at three monthly intervals during the first year, and then again five years later. This showed no statistical difference between hearing tests performed at six months, nine months, and one year. At five year review scars and tympanosclerosis were present only in the ears into which grommets had been inserted.

FIG 2—Follow up of hearing levels in grommet and control ears from Brown et al.¹

The benefits to hearing from grommets occurred only during the first six months after operation; thereafter grommets offered no advantage over the control ears (fig 2). At five years there was no statistical difference in hearing levels between the ears but there was an increased incidence (42%) of tympanosclerosis in the ears that had received grommets and no evidence of such changes in the unoperated ear.

This paper showed me that conservative management is best for most children who have a conductive hearing loss caused by fluid in the middle ear. These children, however, require careful follow up and I see them at intervals of two to four weeks for audiotesting until their hearing returns to normal. Now I am reluctant to refer any child for the insertion of grommets unless I am convinced that there is no prospect that conservative management will be successful and I regard a fair trial of such management as a period of six months.

The correspondence that followed this paper was interesting and one ear, nose, and throat specialist remarked that the "classic British waiting list" in itself a type of conservative management,² so perhaps even institutions such as these have their uses.

Two more recent contributions

The previous two papers stand out as work that has influenced my practice over the past five years. Two more recent papers I regard as contributions that are likely to change my practice in the future. Both were published in June 1983—the first in the *Journal of the Royal College of General Practitioners*, came from Belfast.³ S R Potts and W J Irwin reported the results of a survey by questionnaire of 240 general practitioners who were asked about their management of urinary tract infection in children. They found evidence in an appreciable minority of cases of delayed referral to hospital based on outmoded practice.

In considering the criteria for referral they stated unequivocally that all children with confirmed urinary tract infection should be referred to hospital for further investigation. The results of their survey showed that most general practitioners still believe that referral is only necessary for boys with their first infection and girls with their second. They stated that this policy must be abandoned since half, or more, of children with a single proved infection will have a structural or functional abnormality in the urinary system that can be detected by an abnormality in the urinary tract infection in younger children who have a urinary tract infection and a micturating cystogram. About a third of such children will have vesicoureteric reflux. They advocate this policy since most pyelonephritic scarring occurs before the age of 5 years, so that antibiotic prophylaxis after this time may have little effect on prognosis.

Just as the paper on grommets from Brown and his colleagues has made me less likely to refer children with glue ear for specialist advice, so this paper from Potts and Irwin will lead me to refer more, and probably all, children that I see with urinary tract infection for hospital investigation. As a result of reading their paper I suspect, too, that I shall be more energetic in seeking possible urinary tract infections in younger children who present with vague histories of tummy pain or being off colour.

The authors hope that the more careful investigation of children with this condition "will be to reduce substantially the 10% of renal transplant patients who have a urinary tract infection with a single urinary tract infection in childhood." If more systematic investigation and follow up of these children can prevent one such transplant operation then the effort will have been worth while.

The fourth paper I wish to consider was published in the *BMJ* on 25 June 1983.⁴ J P Thomas and W H Thomson compared thiazide diuretics and amiloride in the treatment of moderate hypertension. I read their paper at the end of a week during which I had seen three patients with symptoms of thiazide induced gout. I was therefore ready material for persuasion to alternative management. This paper has made me consider

Papers That Have Changed My Practice

No "road to Damascus" effect

W MCN STYLES

A review of the past 10 years fails to identify any particular scientific paper that has had a major and dramatic "road to Damascus" impact on the way in which I work. Yet many have helped my understanding of the common problems that I encounter daily, and two from the past stand out that have influenced my behaviour. A further two more recent contributions still have me wondering about changes in policies for the future and these, too, I consider briefly.

Two from the past

Illness in the upper respiratory tract is common in general practice—managing it can be humdrum, unexciting routine. I look back to two papers that in different ways have helped me to understand these conditions and that have altered the way I react when I encounter them in my consulting room.

UPPER RESPIRATORY TRACT ILLNESSES

Not surprisingly, my first paper relating to upper respiratory tract illness in general practice is one from John Howie, now professor of general practice in Edinburgh, for he has made the greatest contributions to our understanding of the ways in which doctors use diagnostic terms and manage respiratory illness.¹ He showed clearly the influences that affect a doctor when he prescribes an antibiotic for a sore throat, and in 1976 he showed that variations in social and psychological history appreciably alter the response to antibiotics. This paper came to me as something of a relief, for I felt guilty about the haphazard way in which I prescribed antibiotics for this symptom. I readily accepted Howie's work as clear evidence that I was no more irrational than my peers, and so I continued my antibiotic therapy with a clear conscience and right, in the form of a paper in the *BMJ*, on my side.

But John Howie had more to tell and on 22 March 1980 he published with A R Bigg another paper in the *BMJ* entitled "Family trends in psychotropic and antibiotic prescribing in general practice",² and this I could not use to rationalise my practice in such a cavalier way. This was a further study of the factors that influence prescribing for acute respiratory illness other than those of the illness itself. The use of antibiotics for such episodes in children was examined in a 10 year retrospective study of the consultations of 50 families in a practice in Aberdeen. This proved the hypothesis that children who received an excess of antibiotics for episodes of acute respiratory illness

belonged to mothers who received an excess of psychotropic drugs. Furthermore, the high antibiotic use of these children was not linked in time to the high psychotropic drug use in their mothers. Indeed, the opposite seemed to be true—the time of highest antibiotic use of the children coincided with the time of lowest psychotropic drug use in their mothers (fig 1).

FIG 1—Relation in time between prescribing psychotropic drugs to high risk mothers and prescribing antibiotics to their children for acute respiratory illness from Howie and Bigg.²

Howie and Bigg postulated that on many occasions the presentation of these children with upper respiratory tract illness was a manifestation of their mothers' anxiety and that these mothers should have been treated as patients at the time of these consultations, rather than their children. Prescribing antibiotics for the children missed the basic reasons for these consultations, so that no help could be offered to their mothers. Indeed, the prescription of an antibiotic compounded in each mother's mind her anxieties about her child, compounded her difficulties, and made it more likely that she would continue to behave in this way in the future. Howie and Bigg believed that the influence of the mother has to be seen as an important and inseparable part of such consultations. To disregard her missed the reason for the consultation: it would have been more appropriate to try to discover this than merely to treat the complaint that had been offered.

This paper showed once again how psychological and social factors may affect prescribing for physical illness in general practice. For it me underlined the importance of recognising that though these factors may be present in the patient, they may also be in other members of his family—a factor that the general

whether or not to continue using bendrofluazide as the diuretic of choice for moderate hypertension.

Thomas and Thomson reported two parallel studies. In the first 40 patients with newly diagnosed hypertension were treated with metoprolol and diuretic, either hydrochlorothiazide or amiloride. In the second study 38 patients who were already receiving treatment with hypotensives and thiazides either continued the treatment or the thiazide was replaced with amiloride. Initial biochemical assessments were compared with those after two years in the study.

In previously untreated patients the thiazide produced a fall in plasma potassium concentration and caused hyperuricaemia; neither of these effects occurred with amiloride. Patients on long term treatment with a thiazide had persistently low potassium concentrations and persistently high urate concentrations. Substitution with amiloride corrected the hypokalaemia and the serum uric acid concentration returned to normal. The impaired glucose tolerance of patients receiving long term treatment with thiazides was corrected in those who received amiloride. Throughout these studies control of hypertension was as effective with either the thiazide or amiloride.

Compliance with treatment may be difficult with hypertensive patients since they are asymptomatic, and yet sometimes the treatment makes them feel unwell. Compliance is especially difficult if hypertensive treatment has induced the painful symptoms of gout. I am attracted by any treatment that will prevent this and which has the added bonus of avoiding glucose intolerance and hypokalaemia and the risks of ventricular tachycardia and fibrillation after acute myocardial infarction that may be related to low potassium concentrations.

My intentions for the immediate future are to use amiloride instead of bendrofluazide for all new patients with hypertension who need a diuretic, and I shall consider later whether or not to substitute amiloride for bendrofluazide in patients who are already on long term treatment.

Conclusion

Although no one scientific paper has brought about major changes in the way in which I work, many have influenced me in small ways. Why have I selected the four papers presented here? John Howie's because it is one of his series that has helped me to understand more clearly the importance of consultations with patients with upper respiratory tract illness and because he has helped me to manage these problems less superficially. I admired very much the design of Brown's study of grommets and ears and the use of each child as his own control. This paper provided me with the management plan that could help children with this disabling condition and which would do least harm. Irwin and Potts shocked me into recognising that urinary tract infection in children is not a minor disorder but one that requires intensive investigation if serious and chronic disease is to be prevented in the future.

Thomas and Thomson's paper came at a time when I was perhaps ripe for change—disenchanted with the iatrogenic disease that I seemed to be causing from my use of thiazide diuretics. I hope that a change to amiloride will make a difference. But who knows whether or not this will occur.

For me, the characteristics of any valuable paper is that it

makes me re-examine things that previously I have taken too much for granted; it makes me question the ways in which I work. Such papers are not uncommon and undoubtedly bring subtle changes to my practice. The four papers presented here have influenced me the most in the past five years.

References

- 1 Howie JGR. A new look at respiratory illness in general practice: a re-evaluation of respiratory illness based on antibiotic prescribing. *J R Coll Gen Pract* 1973;23:895-904.
- 2 Howie JGR. Further observations on diagnosis and management of respiratory illness using simulated patient consultations. *Br Med J* 1974;1:540-3.
- 3 Howie JGR. Clinical judgment and antibiotic use in general practice. *Br Med J* 1979a;1:100-4.
- 4 Howie JGR, Bigg AR. Family trends in psychotropic and antibiotic prescribing in general practice. *Br Med J* 1980;2:1353-6.
- 5 Brown MJ, Richards SH, Ambekar AG. Grommets and glue ear: a five year follow up controlled trial. *J R Soc Med* 1978;71:353-6.
- 6 Shah N. Grommets and glue ear [Letter]. *J R Soc Med* 1978;71:1781.
- 7 Potts SR, Irwin WJ. Urinary tract infection in children: a survey of management. *J R Coll Gen Pract* 1983;33:353-5.
- 8 Thomas JP, Thomson WH. Comparison of thiazide and amiloride in treatment of moderate hypertension. *BMJ* 1983;286:2015-7.

ONE HUNDRED YEARS AGO. Still—see in the *JOURNAL* of March 24th, an article referring to a very severe endemic malaria fever, experienced in Amritsar, Punjab, in 1881. As I am in a position to be able to state facts on this subject, perhaps I may be allowed to give my experience. I had the misery of being senior medical officer to the British forces in that station from March to December, 1878. For the five latter months that place was plague-stricken with a virulent type of malarial fever, markedly intermittent, but with dangerous complications. I suffered from it during those months more or less, having before contracted it in Ferozepore, fifty miles distant. This is shown by Parkes to be the hottest station in India, one exception. He calculated that into the sand of that district the sun's rays penetrated four feet, and yet in 1876-1877 there was a perfect plague of "marsh fever." This was unknown until the fatal "canal project" was instituted. It was there when the first canal burst and flooded miles of the red-hot plain. Then the heat of the sun, combined with the steam of flood water on over-heated sand produced the curse. The same cause existed in Amritsar. Your informant states that the cause was excessive rain-fall. In 1878 that was not the case. The fall was scanty, but the district was a reeking sponge from "canal irrigation." Authorities do not like this fact to be brought to light, but I am happy to state it. In 1878 the malarial fever was named places, I brought this subject without shrinking to their notice (officially): weekly, quarterly and annually, and was in hot water accordingly, but no harm accrued to me ultimately. Even after years of residence in England, I can state from personal experience that the fever recurs. As in the period named by your informant, so in 1878, the whole population, white, malarial, and black, was prostrate, and I assert that as fever of this description was unknown in the Ferozepore and Amritsar until the "canal system" was introduced, and it, and alone, was the cause of the malarial fever, I could relate some extraordinary cases of dangerous collapse simulating that of cholera which occurred during the progress of this fever, and they would be as suitable to this letter—"Yours truly, HCP." (*British Medical Journal* 1883;3:1051).