(1) Tell me about your background.

Well, I was born and bred in Aberdeen; had most of my schooling here. Of the last three years of my secondary schooling, went to Strathallan School, a private boarding school near Perth. I think, largely, because, of course, my education was disrupted quite a bit by the war years, and I don't know if I'd have obtained the necessary qualifications if I'd stayed at the Aberdeen Grammar School, which I'd been at previously. We were brought up in a comfortable family. My father had been manager of an insurance company. I had two brothers, one elder and one younger. I'd early decided to go in for medicine - I'm not sure why, with no family connection of medicine - and entered Aberdeen University in 1948; graduated with honours in medicine in 1954. Then, after two years... after a year's house post in Aberdeen Royal Infirmary, I had two years National Service in the RAMC, which I spent at Catterick Camp, which I, in fact, thoroughly enjoyed. Met graduates from many other universities, and saw quite a lot of interesting medicine at the same time. Then, being keen on a career in hospital medicine, I returned to Aberdeen in 1957, as registrar in general medicine. There were no SHO posts, at that time. And it was in the first year or two I managed to pass the membership exam of the Royal College of Physicians of London, and later became senior registrar. And then, in 1961, I became a lecturer in Materia Medica and Therapeutics in the university department in Aberdeen. I managed, there, to do some research work, and obtained my MD. And then, in 1968, I was appointed consultant in general medicine and diabetes. The main thrust of the post was, in fact, to be in general medicine, which I had been truly trained. I was to be responsible for thirty two medical beds, admitting both emergency and list cases; a weekly outpatient clinic; and also a monthly medical clinic in the Orkney Islands, north of Scotland. This involved a stay there for two nights, two days; really very busy clinic. At that time, I'd had no, really, previous experience of general medicine, apart from what one encountered in the course of general medicine.

Sorry, no experience of diabetes.

No experience, that's right, sorry.

And, I mean, had you learnt about diabetes during your training?

Well, I mean, inevitably, had no experience with diabetes. Obviously I'd seen a certain amount of diabetes, but I had no real personal, great experience of it. So, I was given three months' study leave, and spent two months in London, attached to Guy's Hospital, with Professor Butterfield. I was able to attend many of the major clinics in London, to get experience of how they were managing diabetics. And then spent a month in Birmingham, at the General Hospital, with Professor John Malins. It was also fortunate that, at this time, the two major textbooks on diabetes in this country - one by John Malins and one by Oakley, Pyke and Taylor - had just been published. So, I bought these, and read them from cover to cover, to learn about diabetes. I was really appointed to help out with Professor... - no, he wasn't professor then - Dr John Stowers,

who was responsible for the Aberdeen clinic, as he was sole consultant and was needing help.

(2) So, to get a snapshot, then, of clinics in London and Birmingham in 1968. First of all, what was the London clinic like?

Well, I attended them in the one at Guy's, but also paid visits to the diabetic clinic at the Middlesex hospital, with Dr Nabarro, and to the postgraduate medical school in London with... oh, I've forgotten the name of the doctor, now; it's escaped my mind with the time. They were moderately... they were nothing like as large as the clinic in Aberdeen, because they were only held - well, I can't remember now - one or two mornings a week, whereas there were always daily clinics in Aberdeen. Also, as we'll mention later, we were really quite advanced in some of the things we were doing. For instance, we were able to get blood sugar measurements, available at the time we saw the patients, which was not available in any of the clinics I attended in London, nor the one in Birmingham, to my recollection. The Birmingham clinic was a very large clinic, but I think, again, it was only... was it twice a week, it was held? Large number of doctors, and the patients often saw a different doctor each time they attended. And also, there were a large number of immigrant patients there, which was something alien to me in Aberdeen. And there... I remember, distinctly, the diet sheets printed out in Urdu, and all the different Indian dialects. And, I mean, quite a number of the patients came - who couldn't themselves speak English - came with an interpreter, which made their management very difficult.

So, you came back from these three months observation to the Aberdeen clinic. Can you tell me the history of the Aberdeen clinic, up until 1968?

Yes, well, the Aberdeen diabetic clinic was first started in 1926, so I think that was relatively early. It was started and run by a Dr Alexander Lyall, who was an Aberdeen graduate. But prior to his appointment in Aberdeen, he'd been working for two years in London with a Professor Hugh MacLean, who was also an Aberdeen graduate, who was a professor of medicine at St Thomas' hospital, and had had a long-standing interest in carbohydrate metabolism. And I think he'd started one of the earlier clinics in London. As I say, this Dr Lyall was appointed a consultant, and took charge of the diabetic clinic; later, also took charge of the chemical pathology or clinical biochemistry department in Aberdeen. And I think the clinic was run, right from the beginning, almost every day, although, of course, initially there were a relatively small number of patients, but it progressively increased. And he later had to get the help of a lecturer from his own department. He also used to run a Sunday morning clinic. And then, when he retired - it was maybe in 1962 - then Dr John Stowers was appointed. He, himself, was a diabetic. He'd been trained in London, at the Middlesex Hospital, and later worked in Dundee, prior to coming to Aberdeen. He introduced a number of important innovations. He introduced a formal appointment system, which there hadn't been. And instead of a Sunday morning clinic, which Dr Lyall had formerly run, he changed it and ran twice-monthly evening clinics, predominantly for the younger or working patients. And some

older patients used to come, if they needed someone to bring them to the clinic.

(3) As regards treatment that we.... modalities that we used: at the time I started at Aberdeen, the policy used to be that all young patients were treated with twice-daily insulin, mainly ox soluble insulin, though occasionally we substituted semi-Lente for one or other injection, if the soluble didn't seem to be working long enough. Older patients were treated with once-daily insulin, mainly Lente insulin. Dr Stowers, my senior, had been involved, in the Middlesex Hospital, in the first introduction of the Lente insulins, and he tended to change quite a number of patients from twice-daily insulin onto the Lente insulin, once daily; often in quite large doses. But then later, when we'd got more adequate methods of assessing control, we realised that this really did not produce proper blood sugar control for patients. And many of these patients ended up with unpleasant microvascular complications, with eye disease or kidney disease. In fact, it was so common, in this group of patients, that I began to refer to it as the Lente insulin disease. But, as I say, my policy was twice-a-day insulin for young patients; once daily for older patients, mainly Lente insulin. But if patients moved into our area from elsewhere, on different treatment modalities, then we never used to change them just for the sake of change. So, we ended up with patients on a wide variety of different treatment regimes. With regard to oral treatment, Chlorpropamide had been the most widely used oral drug, at this time, but it had certain disadvantages. It could cause allergy in some patients; it also caused alcohol intolerance, that even with small amounts of alcohol, people used to get unpleasant facial flushing and sweating; and also the risk of accumulating, in older patients, particularly those with impaired renal function. So, my preferred oral agent was the drug Tolazamide, which was shorter acting, and did not cause alcohol intolerance. There was also Fenformin, which was used for overweight patients, or often, later, in combination with Chlorpropamide or Tolazamide, if that wasn't being fully effective. But it was later realised that this could cause unpleasant side effects with lactic acidosis, which we experienced a number of times in patients in Aberdeen. And it was discontinued altogether, and replaced with the drug Metformin, when it became available. Patients had to control themselves, then, by urine testing, using Clinitest tablets. And we used to... All the patients on insulin were given a little pink insulin card, which contained their name and address, and the name of their general practitioner. And there was a thing on the back, as far as I can recollect, saying if the patient was found faint or unwell to give them sugar. And we recorded on that the type and dose and strength of insulin, that they were on. Because, in these days, insulin was available in different strengths, so it had to be prescribed both in units and in marks on the syringe, according to whether they were on forty units per cc or eighty units per cc strength insulin. Now, Dr Stowers' innovation: we used, for people on twice-daily insulin, we used what we called reverse testing. The patient adjusted their morning dose of insulin

according to their pre-tea urine test results, and the evening dose was based on the before-breakfast urine test result. This had avoided a - if you think of it logically - avoided a sort of see-saw effect of blood sugars that could be produced if you did it in a more conventional way of testing, and giving the dose according to the test at that time.

Was reverse testing effective?

Yes, I think it was very effective, as far as I was aware. I mean we didn't do any formal study of it, but it was a much more logical way to do it, if you sit down and think about it. All young patients were also given Acetest tablets, and told to, if they felt unwell or had poor urine test results, to use this. And it was written on their insulin cards for them to then increase their insulin dosage by four or eight units if they got a moderate or strong reaction, and to continue that till the results settled. At this time, of course, patients had all to use glass metal insulin syringes, kept in a spirit-proof case. And they were all provided - free - with a plastic insulin case, that one of the drug companies - I can't remember, now, which one it was - made and provided us with.

(4) You mentioned that, in Aberdeen, you were more advanced in blood testing in the clinic. Can you describe that?

Yes, well, the clinic which... The Aberdeen diabetic clinic was held every day, Monday to Friday, and then - I think I may have mentioned earlier - two evening clinics a month. The staff at the clinic: there was one consultant, one registrar, and two part-time lady medical assistants. Now, we kept our own records in the diabetic clinic, and each one was marked with the initials of the doctor. And each doctor had their own individual lists, which meant that the patients attending saw the same doctor each time, which I think was a considerable advantage, and much liked by the patients. The only possible disadvantage was that, of course, the registrars' lists - they only were attached to the clinic for six months - so, the patients on their lists maybe tended to see a constant changing succession of doctors. But, in general, any more complicated, difficult patients would be transferred from their lists onto the consultants' lists. The staff at the clinic, in addition to the doctors: we had a staff nurse, and a nurse who weighed and tested the patients' urinary emission for sugar, ketones and albumin. We had initially one, later two dietitians; a health visitor - later two health visitors - who used to visit patients in their homes, particularly newly diagnosed and newly treated patients, or elderly patients and patients with other social problems; were a great help. And there were two lab technicians, who were in the clinic. And they had a machine - I can't remember the name of it - but it did blood sugars on capillary blood samples taken off the ear, and were able to produce the result of these before we saw the patients. This was something that was not available in any of the clinics I attended in London, and I think it was a great advantage. Furthermore, the referral letters from general practitioners were screened on the day they came in, by the consultant on duty. Patients with suspected new Type1 diabetes were seen within twenty four or forty eight hours, by telephoned appointment. All other patients were seen within seven to ten

days. So, it was really a highly efficient system, in these days, but unfortunately, later on, the waiting time, for a variety of reasons, did tend to increase. Also, we were able... Patients who were picked up to have glycosuria during a routine medical, who maybe just had renal glycosuria, we used to book these patients in to attend for an oral glucose tolerance test. And the results of that were available on the same day, before we saw the patient. And we were able, then, to give the patient a definitive diagnosis, there and then. And it meant that everything could be sorted out just at one visit. Again, I don't think this was something that was available elsewhere, and was really, from the patients' point of view, a highly efficient system.

Can you remember how many patients there were, roughly, in 1968?

I would have thought between two and three thousand. There'd been a policy in Aberdeen, for some time, that all patients with suspected diabetes - or virtually all - were referred to the clinic, and were thereafter followed up for life. There were a small number who were looked after by general practitioners, out in the remoter areas, but not in the town. There were, inevitably, numbers that defaulted from the clinic, but if that happened, the policy used to be to send the patient, if I remember, three appointments. And then, if they didn't attend the third one, a note was sent to the general practitioner saying they hadn't come. And, more often than not, these patients were chased back by their general practitioners. But general practitioners were not very happy, or keen, on looking after diabetics.

Why not?

Well, I think it was regarded as a fairly complicated, specialised problem. I don't know whether that was necessarily the case, as it changed in later years. But that would have been the assumption, initially. I mean, when the insulin first came along, it was thought to be something difficult, and needing very specialised training to use.

(5) So, the patients were treated at the hospital, and you mentioned dietitians. Can you remember what dietitians were recommending in 1968?

Yes. From memory, I think there was still this policy, then, of sort of carbohydrate restriction. Of course, this then led to a sort of increase in the fat intake, which, in later years, was found to be detrimental. So, there was, I mean, a radical change, and I can't remember, now, the exact time that this occurred, and far freer carbohydrate allowances were used. They did use diet sheets, but not printed ones. They were written out individually for the patients, so that they match... to fit in with farm workers, or people working at sea, and a great variety of different jobs. And, I mean, their dietary requirements were obviously very different from that from office workers or housewives, and so on.

Did you work with the dietitians, or would you have sent the patient off to see the dietitian?

No, we tended to refer the patients to the dietitian. I mean, all new patients

were obviously seen by them, and seen several times. And patients, thereafter, it was largely to their choice. But often we used to, if people were gaining weight or having some particular problem, then we used to refer them to the dietitian. Initially, there was just one dietitian, but later, I mean, they were such a vital part of treatment, we had two at every single clinic. And we were fortunate, in Aberdeen, there'd been a training school in dietetics set up at Robert Gordon's Institute, so we always had a plentiful supply of applicants and appointees.

What about chiropodists?

Yes, again, this was realised, and it became increasingly important. And, I can't remember, but I don't think there was a chiropodist there when I first started, but very soon thereafter, there was certainly one, and later two chiropodists appointed. And, I mean, again, patients had the option of just going to them, but people with particular foot problems were booked in and attended them regularly. And this determined the frequency of their hospital appointments. We tended to make them so that they coincided - they saw both the chiropodist and the doctor at the same time - and that would be a minimum of every three months.

What was the policy for newly diagnosed patients?

Well, the policy... All young patients, we tended to admit to hospital for, usually, three or four days, for initial intensive education. I used to sit down and speak to them several times myself, and the dietitians used to see them, and the nurses showed them how to draw up insulin and inject themselves. But, I mean, people on oral therapy, they were all just managed as outpatients. And, again, they were brought back to the clinic, initially - I suppose it's difficult to say - weekly or with short gaps, and then increasingly widening gaps as they got stabilised. Most patients... all young patients were seen at a minimum of about every three months, but some older patients - or more stable ones on diet, or on diet and oral therapy - maybe seen just every six months. But if they needed foot attention, then, obviously, that dictated the frequency of the appointments: they'd be seen every three months.

(6) What were the major changes after you began in 1968?

Well, the first change, that I remember, was the change to U100 insulin. And this had to be done gradually, with a large number of patients. Patients, at one appointment, would be asked at their next appointment to bring all their syringes and their insulin with them. And we then issued them with the new U100 insulin syringes, and initial supply of the U100 insulin, and explained how to use this. Because, this was a great advantage, once it was all in place. It did away with this confusion over marks and units of insulin, which often led to confusion, and occasionally some disastrous consequences. Patients were admitted to hospital, and weren't sure what strength of insulin they were on. I remember one or two patients who were put on totally wrong doses of insulin, often with unfortunate consequences. It was interesting, then, too that some of the people who brought in their syringes, some of them had been using the

same syringe for weeks, if not months; some of them in a filthy state. And it was quite remarkable how they'd avoided getting skin infections, but this was remarkably infrequent with insulin injections; there was some antiseptic in insulin, as a preservative, which prevented that. Next change, I can remember, was the introduction of the newer, highly purified insulins. And we changed onto, I suppose, to the use of these, and there was Actrapid insulin, and then various made up mixtures. And we used these very widely; and Mixtard insulin or Initard insulin, twice a day, were our most widely used insulin preparations for younger patients. They had many advantages. I mean, people on the older insulins often used to get unpleasant, unsightly hollows, or fatty lumps at the site of injections, and these disappeared completely with the introduction of the highly purified insulins. Next, I suppose, was the change to human insulins. Now, unlike many other clinics, we did not change our patients routinely onto human insulin. It was decided, from the introduction, that all new patients starting on insulin would use human insulins. But we did not change longer-standing patients. And I think this had been the policy in many other clinics. And I became convinced, as, I think, some other doctors - the evidence was never forthcoming - that patients who'd been long-term on animal insulins, changed to human insulins, used to get less warning of hypoglycaemia. Many doctors - I mean, what I read in the medical press - were rather dismissive of this, but I'd always taken the point that you had to believe what patients, who'd been on treatment for a long time, said. They knew as much, if not more about it than we did. So, fortunately, we didn't encounter these problems; as I say, we didn't change the patients unnecessarily.

(7) How often did you do the outpatients clinics yourself?

The diabetic clinic I did twice-weekly, on Wednesdays and Fridays, and also each evening clinics, which were twice a month. I also, later, started a small diabetic clinic up in Orkney, but that was just, sort of, tagged on to the - I can't remember if it was the morning or afternoon - of the medical clinic. I was able to get a dietitian appointed up there, and also a chiropodist.

Any idea when that was, roughly?

No, gracious, I'd really be guessing. 19... early 1980s, maybe?

And what was transport like from Aberdeen to the Orkneys?

Oh, well, I flew up. I mean, there was a very good, fairly good, air service. And I found the medical clinics up there were very interesting. I saw the whole range of general medicine - often some, sort of like, almost old-fashioned medicine - up there, although the standard of practice, on the whole, was very good. But, I found it most interesting.

What do you mean by examples of old-fashioned medicine?

Well, people with, sort of, well established, sort of, advanced disease.

Did that apply to diabetes, too?

Well, unfortunately, some of them, yes. Some of them hadn't been really well looked after for, you know, properly looked after for a lot of years. And they had unpleasant complications.

And back in Aberdeen, what other changes did you make?

Well, there was the introduction of the plastic syringes, which was a great advance. And they were much smaller needles, much more comfortable for the patients to inject. They were introduced as disposable syringes, but, of course, in Aberdeen, we've a long-standing reputation for meanness. We always encouraged our patients to re-use them. And we never had any - and, frankly, to re-use them several times - never encountered any problems with skin infections, although, again, like many other places, we stopped using spirit to wipe the injection site, because this tended to harden the skin. But, I think I may have mentioned already, there's some antiseptic in insulin, and I'd personally never ever encountered skin sepsis from an insulin injection. The patients had to buy these syringes, initially, but we... our pharmacy was generous. We used to provide them free of charge to people who we felt were, you know, poor social positions nor readily able to buy these for themselves. The health visitors used to often control or regulate the supply to older patients. And one interesting man, a retired engineer, who'd attended the clinic for many years; he was a bachelor. He used to always turn up looking rather down-at-heel, and the health visitors thought he was rather impoverished. And he was provided with free syringes over quite a number... period of months, if not years. He was also given free holidays. There was a little... some people had left a bequest, which was used to fund a boarding house up in Nairn, where - run by diabetics - where patients could be sent for a free holiday. When he eventually died, he left an estate of a million pounds, half a million of which was left to the Diabetic Association, so he could have well afforded his syringes himself. But, he benefited the Diabetic Association at the end of his days, very munificently.

(8) And any more changes?

Yeah, well, there was the very important introduction of blood sugar monitoring, using mostly BM sticks, which was one of the first we introduced. And this was, no doubt, a great innovation and advance. Again, in Aberdeen, to save them, we used to encourage our patients to cut their strips in two. Again, unlike I think what happened in other clinics, we were fortunate with our pharmacy were very cooperative, and provided us with large supplies of these. And we were able to give these to the patients; they didn't have to buy them. And we also provided them with a diary, which one of the drug companies provided them with, to record the results in. There was no doubt this led to a considerable advance, and enabled the patients to obtain far better control than had been previously possible by just urine test results.

Do you think they recorded the results truthfully?

I think most did. There were some, obviously, used to come in with their diaries just showing straight lines, and we were obviously very suspicious of this. It

was very difficult to sort it out, at that time, but then later, shortly after that, there was the introduction of the ability to measure glycosylated haemoglobin, or HbA1c. Initially, this could only be done on a venous blood sample, so we didn't do that all that often. But a later technique was introduced in the clinic, where they could do it on a capillary blood sample. And, on a small number - I've forgotten, it was either eight or ten at each clinic - they could do it, and have the result available for us when we saw the patient, which was a great advance. Some people referred to this as a spy test, because, I mean, people could come in claiming their blood sugar readings were all fine, but if this was elevated, it showed that their blood sugar readings were not accurate and correct. And this was a very considerable advance. But I think it also brought home to us how really difficult it was to control diabetes. I mean, it was very difficult to get these down to normal levels, and patients still leading a normal, satisfactory lifestyle.

Were there any other major changes for Type 2 patients?

Well, yes, there was - I mean, I can't remember the year now - but more potent tablets came along: Glybenclamide and Glipizide. Glipizide was the one, for no particular reason, that I used most widely. This extended the scale of management, for Type 2 diabetes, for quite some time; delayed the necessity for them to go on insulin. But, being more potent, they also could cause hypoglycaemia. And patients had to be warned of this, and encouraged to carry sugar with them, and know what to do if they got such symptoms.

(9) And after a pause, you've remembered that you omitted a practice from when you first arrived in 1968.

Yes, that's correct, yes. It was a Dr Stowers innovation. Rather than prescribing insulin in fixed doses, that I think was the practice in most centres and clinics, we prescribed it in what we called sliding scales. For instance, someone on twice daily insulin would have a sliding scale based on urine test results. This was written on their insulin cards: orange, yellow, green and blue with a scale of insulin. And this encouraged the patient both to test their urine, and to adjust their own insulin dosage. I think it was a very effective and useful scheme, which, as I say, I'm not aware was used in most places. Most places, I think, just prescribed insulin in fixed doses, and then it became uncertain why the patient was testing their urine if they weren't going to make any alterations themselves. Much of our policy, or ethos, sort of thing, was to patient management; try and look after themselves. And, as I say, education was a very important part of the diabetes management. A very useful booklet - there was one produced from a doctor in Liverpool, was the one we most widely used - was well-illustrated, and covered all the essential parts of self management.

And can you talk about how the management of various complications changed from when you began the clinic in 1968 to when you retired in 1994?

Yes, well, of course, this is one of the most unpleasant aspects of diabetes, the risk of complications, which, unfortunately, was all too frequent. Initially, there

was, unfortunately, very little one could do. Cataracts could be operated on, but the retinopathy - when I first started - there was no effective treatment for at all. Later, treatment came along: first with xenon arc photocoagulation, but this required inpatient management. Later, argon laser treatments could be done as an outpatient. We were fortunate in having a fairly advanced ophthalmology department, in Aberdeen, that introduced this quite early. Of course, screening of the eyes became most important. And I was auditing other people's patients - wasn't entirely satisfied, in later years, that this was being done properly. So, once I'd become consultant in charge of the clinic, at the clinic meeting I announced the start of the 'year of the eye', where I encouraged to make sure that every patient had been having their eyes checked. And we used to put in drops to dilate their pupils and examine their retina carefully, and any patient with significant retinopathy would be referred to the ophthalmologists. And there was no doubt this was a very considerable advance. Renal disease, of course - the other important complication - again, in my early years, there was really nothing, unfortunately, could be done for this. Haemodialysis, when it was introduced, was only available on a restricted policy, and diabetics were not accepted. But later, as that facility improved and they were able to accept patients, and they were referred. And we had fairly good co-operation with the renal physicians, and had a number of patients, latterly, treated with either haemodialysis or peritoneal dialysis. Obviously, some patients, later, who had renal transplants. The management of hypertension became increasingly important. It was recognised this could delay progress, so, again, regular blood pressure measurements and aggressive treatment of that became important. Foot care: we've already mentioned the importance of chiropody for dealing with or preventing neuropathic ulcers. Peripheral vascular disease was also, of course, fairly common. Again, we had good relations with the vascular surgeons, in Aberdeen, and we used to refer patients to them, as appropriate, for surgical treatment. And again, the later advances in that became... they came along with... can't remember the name of the techniques now, but they were able to dilate vessels rather than having to operate on them.

(10) How did you keep your records of patients' histories?

Well, we had our own records in the diabetic clinic, because we operated an open door policy. The patients, if they had problems, could just phone up and come along, sort of that morning. But we used to, when we were dictating letters, copies of - not all the letters, but certainly all the initial letters, and if there was change in treatment - were copied into the main hospital record, which was kept at the Infirmary. I think it was about... was in the early 1980s that Dr Stowers, my predecessor, became keen on computerising the records. This, of course, was a major undertaking, but we were able to get an additional secretary employed, and we did it in stages. We'd compiled problem lists for each patient, and then, once this was on the go, at each patient visit, the data had to be typed out and put onto the computer. This was done mainly to facilitate research, I think, so that patients with problems could be readily collected and identified. It was a lot of work, and I was not, myself, all that certain of how much value this was going

to bring about. But I think it's now, of course, in the computer age - I'm out of touch - but I think everything's done on computer, nowadays, at the clinic.

And what were your connections with GPs and care in the community?

Well, I mean, very good. I mean, most of the GPs in the area - not all, but a large majority - were local graduates, and I knew a lot of them personally, or else you used to meet them at local medical meetings. But very good relations between the general practitioners and all the hospital consultants. And then, because of, really, the increasing workload of the clinic, which we realised we were not going to be able to bear, and maybe there were other reasons that I can't remember, it was about 1980 we introduced a share-care scheme. We wrote round to a number of GP practices and asked who would be interested in this, and quite a number were. And after meetings with them, this was introduced. The idea would be that patients would go to their general practitioners maybe every three months, and then have an annual visit to the diabetic clinic, at which the information at the GP visits would be available to us, and we'd just do a general review. Most of the practitioners liked this. The only thing I found was that, in many cases, when the patient was attending, it wasn't the GP they were seeing at all, but the practice nurse. I'm not derogatory about practice nurses, but I don't know it was entirely what we'd had in mind. But I think, as far as I understand - certainly since I retired - this scheme has become much more widespread. And I think GPs, of course, get paid for this, and that's encouraged a lot of them to participate in it. About 1983 that I became, myself, consultant in charge of the clinic, and, as I say, I was quite involved in this shared care scheme; meetings with general practitioners, setting it up.

(11) And how much were you involved in research?

Well, not really greatly. But I became involved - although not all that enthusiastically, to begin with - in the shared... not the shared care, the UK prospective study, which was run by Robert Turner, with great zeal, from Oxford. Dr Stowers was very keen, and I think Aberdeen, we were one of the first centres to participate in the initial... in fact, sort of, trial study of this. As I say, I wasn't terribly enthusiastic to begin with, for several reasons. Firstly, the treatment modalities they were using were not ones that we were routinely using in Aberdeen. They preferred using Glybenclamide, whereas I preferred Glipizide. They were using Metformin, and in eight-fifty milligram tablets, whereas we were always routinely using the five hundred milligram tablets. And patients onto insulin were being treated with ultra Lente, with or without Actrapid insulin, as I remember. Also, the follow-up involved filling in and ticking a large number of boxes, which was not the type of medicine that I particularly enjoyed. But I later appreciated that great value was going to come out of this study, so did participate. I attended a number of their meetings, and had quite a number of patients in the study, and there was no doubt this produced a wealth of invaluable information for the future management of diabetes.

Looking back over your career, would you be able to reflect on the relationship

between the doctor and the patient?

Yes, well, I think, in Aberdeen, we were fairly lucky to have a relatively affluent area, and our patients were - maybe being snide - but were all reasonably intelligent and co-operative, unlike... I mean, from my experience of attending some other clinics. Again, not being racist, but we didn't have any ethnic minorities, people who couldn't speak English, attending the clinic. And, as I mentioned earlier, one of the things, in Aberdeen, was that patients attending saw the same doctor each time, and you were able to build up considerable rapport with them. Obviously, occasionally, there were conflicts of personality, in which case the patients - there would be no problem - could move onto another doctor's list. And, I mean, this happened occasionally; nobody's perfect or suits everybody. But, on the whole, we got on very well with our patients. We referred to them on Christian name terms... maybe a bit formal, although they didn't refer to us on Christian name terms. But, in general, we were their friends, rather than their doctors. I mean, I was personally seeing patients for more than twenty years, and obviously got to know them, and all their different problems. We also had a very active local patients' association; a branch of the British Diabetic Association, as it was then known. This was, of course, essentially run by the patients, but the consultant in charge - or, in fact, even before I was a consultant in charge - we used to always attend their meetings, which were held in the diabetic clinic. And they used to organise meetings - I can't remember - four or five times a year, which myself and others, and different people, went and spoke to, on different aspects of diabetes and diabetic management. They also later started - I can't remember if it was their or our idea - but teach-ins, held out at small townships in the surrounding area. These proved highly successful. They used to be widely advertised, with advertisements put up about them in the local GP surgeries, and in the chemists, and other shops in the area. And they used to attract somewhere between two and three hundred people to them. What happened was, there used to be introductory talks. I used to personally always give a small introductory talk about diabetes and diabetes management. There was then a talk from a dietitian, and then a talk from a local patient, giving their experiences, and often of which were... used many amusing incidents. And then there were a whole load of stalls, manned by the nurses, chiropodists, dietitians, covering all different aspects of diabetes; diabetic literature that could be available for patients. And patients and their relatives attended, and there was also tea and biscuits served. And these really proved highly popular, and I think were a very successful and innovative way of teaching and broadening knowledge about diabetes.

Was this part of your job, or did you do this in a voluntary capacity?

Well, it was done entirely voluntarily; these were always held in the evenings. I mean, nearly all... as I say, I did two evening clinics a month, and in my day, these were always voluntary. I think people would be paid for doing that, nowadays, but we just regarded it as part of our duty.