

NEWS LETTER

**The
SCOTTISH
SOCIETY of
ANAESTHETISTS**

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THE SCOTTISH SOCIETY OF ANAESTHETISTS

(Founded 20th February 1914)

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“The objects of the Society will be to further the study of the science and practice of anaesthetics and the proper teaching thereof, and to conserve and advance the interests of anaesthetists.”

“Ordinary membership will be restricted to members of the medical profession practising the specialty of anaesthetics.”

– Extracts from the Constitution.

Subscriptions

£1.00 per annum

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President's Newsletter

In a recent President's Newsletter the question was posed to what extent our Society should get involved in medical politics, as this is not one of its functions as laid down in its constitution. Many anaesthetists, your current president included, find this aspect of medicine tedious and unattractive but on reflection it must be admitted that such an attitude has had some adverse effects on the progress of our specialty. In the past our spokesmen on committees concerned with negotiating policy on pay and conditions in the hospital service have largely been part-time consultants, although the majority of consultant anaesthetists in Scotland are whole-time. Existing contracts appear to be biased in favour of part-timers who are in a position to increase their earnings by increasing their fees in private practice. Over the past few years the economic position of whole-time consultants has deteriorated with the result that intake into our specialty has suffered and, still more ominous, that trained and qualified young anaesthetists have left for other fields.

Happily, the constitution of the policy-steering committees has more recently undergone a change

in so far as whole-time interests are more strongly represented; incidentally, the number of anaesthetists on them is also greater than before. The proposals for new contracts are more favourable to the whole-timer and this is likely to go some way in reversing the recent adverse trends in a specialty in which part-time work has some unattractive features.

The position of anaesthetics within the health service is now likely to take a turn for the better but a weak link persists. Our very able representatives on the negotiating committee are insufficiently strengthened by active support from their colleagues. Perhaps it should be a function of the Scottish Society to provide a forum for general discussion on political matters, for practical reasons best organised on a regional basis. This could help the average anaesthetist, who is wrapped up in his job and often not politically orientated, to crystallise his thoughts on proposed changes and all their implications. In this way individuals would find it easier to keep abreast with the progress of important negotiations.

Programme for 1974 – 75

REGISTRARS' MEETING: Ninewells Hospital, Dundee. 25th October, 1974.

ANNUAL GENERAL MEETING: 1975: The Post House Hotel, Aviemore 25th–27th April, 1975.

SCIENTIFIC MEETING; Aberdeen, May 1975.

Activities of the Past Year

The Annual General Meeting was again held in the Post House, Aviemore from 26th to 28th April, 1974. The guest speaker was Dr. D.D.C. Howat who spoke on the topical subject of Anaesthesia and the Common Market. A full report on the meeting appears below.

The Scientific Meeting held in the Royal Infirmary on 8th June 1974 took the form of a symposium on Septic Shock. This attracted a large audience who heard papers by Professor A.P.M. Forrest, Dr. I.McA. Ledingham, Dr. D.B. Scott and Dr. J.D. Sleigh. Summaries of the papers appear later in the Newsletter.

Registrars' Meeting: Dundee. On Friday 25th October, 77 registrars from various Scottish centres gathered in Ninewells Hospital, Dundee, for the annual meeting.

In the morning session each of four groups enjoyed a tour of the hospital including shopping centre, as yet unoccupied, and out-patient facilities, temporary AVU facilities, and theatre suite. All were undoubtedly impressed with the patient and staff facilities, especially those in the theatre suite with its comprehensive monitoring and data recording capabilities. After coffee we

enjoyed three half-hour demonstrations: Dr Forrest gave a commendably lucid account of the theories behind dye dilution cardiac output measurement and demonstrated dye injection technique and the function of the Waters cardiac output computer. Dr Ingram from St Andrews gave a succinct demonstration of closing volume measurement by the single-breath oxygen technique, expired nitrogen levels being measured by a mass spectrometer. The third demonstration was concerned with *in vitro* muscle testing as an aid to determining sensitive patients liable to develop hyperpyrexia on exposure to halothane, and was well demonstrated by Dr McLaughlin and Dr Leslie.

After lunch three papers were presented: the first on a series of Caesarian sections under epidural anaesthesia, the second on a case exhibiting the complexities of intensive care management especially related to lung function and arterial oxygenation, and the third on an interesting fatal case of malignant hyperpyrexia. Each paper was followed by some lively and searching discussion.

Altogether it was an educative and enjoyable day and we are all grateful for the hard work by both the anaesthetic staff and the catering staff in supplying such commendable hospitality.

PAYMENT OF ANNUAL SUBSCRIPTION BY BANKER'S ORDER

From time to time, members have requested that they be allowed to pay the annual subscription to the Society by Banker's Order. It was realised that this would be of benefit to the member and to the Society alike, but with successive secretaries operating through different banking accounts it was not considered workable to inaugurate such a scheme.

Arrangements have now been made whereby those members who prefer to pay the annual subscription by Banker's Order may do so through

the Head Office of the Bank of Scotland, The Mound, Edinburgh. The Society's financial year ends 31st March, and payment by Banker's Order may therefore begin with the subscription for the ensuing year, payable 1st April. The scheme is commended to members for their own convenience, for the Society's financial situation, and for the facilitation of the Hon. Treasurer's duties.

A form suitable for use is available on application to the Hon. Treasurer.

Annual General Meeting – Aviemore

26th – 28th APRIL, 1974

The 1974 A.G.M. held in the Post House Hotel, Aviemore was well attended in spite of the fears of power shortages and petrol rationing. These fears arose around Christmas, just when most people are making the decision whether or not to attend the Meeting so the good attendance can be considered a measure of the strength of our Society.

Power itself was in plentiful supply when the Meeting arrived, in particular on the golf course and the curling rink. Prizes for their efforts were awarded to Mrs. Bargh and Dr. Bargh from Glasgow, who won the Ladies and Gentlemen's golf competitions and on the ice to the winning rink of Mrs. Grigor, Mrs. Parbrook, Neil Masson and Dr. Kyles.

The Trade Exhibition was also very successful and the Society awarded a Prize for a golf

competition amongst the trade representatives. This was won by Mr. Alec Young of the British Oxygen Company and no doubt serious efforts will be made to wrestle this title away from him next year.

Suitable venues for the A.G.M. of our Society are scarce and once obtained, must not lightly be given up, as pressure of bookings mean that return visits in subsequent years may be difficult to arrange. Aviemore has proved to be a convenient site with many activities available nearby. Your Council has therefore decided to hold the A.G.M. in Aviemore for at least one more year but efforts are being made on your behalf to assess the relative merits of other centres for meetings in the future. In the meantime we hope that the 1975 A.G.M. will continue to receive your support.



Business

Pleasure at The A.G.M.



I have decided to present some of my personal impressions of the formative years of anaesthesia as a speciality and express some of my thoughts on the future of anaesthetists within the framework of hospital medicine.

It could be that some of our younger colleagues may not fully appreciate that it is not yet safe for us to regard our present position among the specialities as firmly and irrevocably established. Anaesthesia is a relatively young speciality and one which is still expanding and must expand in order to have the future which we have envisaged for it. Its place will depend, not only on what anaesthetists can contribute to medicine as a whole, but also on how they will cope with the increasing pressures and personal difficulties which the achievement of a prominent place among the inter-dependant specialities will inevitably bring about.

My association with anaesthesia goes back over 38 years. I was introduced to it in 1936 at the Western General Hospital when I was still a student. There was then no anaesthetic staff at this hospital and all anaesthetics were given by the resident clinical clerks, of whom I was one. I held this position for some months in 1936 and again in 1937, because it meant free board and lodging and I had little money. During these months I acquired an interest in the subject and apparently some aptitude because I soon found myself in the position of acting, unpaid anaesthetist to the surgical units. I had given a good few hundred anaesthetics by the time I qualified, probably to the detriment of my studies in some of the other subjects. After qualifying, and a period of general resident posts, I was appointed to the newly created post of resident anaesthetist at the Western General early in 1939. Even at that time the Board of Management apparently recognised that anaesthesia entailed a greater degree of responsibility than other resident posts because they offered the generous salary of £150 per annum, while the other residents were paid only £100.

A year later, in 1940, I succeeded in passing the D.A. examination and, although I had not quite

rid myself of a hankering to do surgery, I was now virtually committed.

I should remind you that the term resident anaesthetist did not mean then quite what it means now, at least not at my hospital. At my princely salary it was my duty to provide a 24-hours a day, 7 days a week anaesthetic service for elective and emergency operations in the departments of general (which included thoracic) urological, ear, nose and throat surgery and obstetrics. In those days thoracic surgery consisted chiefly of thoracoplasties and an occasional lower lobectomy and I might add that, until cyclopropane became available to me and I discovered its advantages, I managed these thoracic cases under high spinal analgesia and, surprisingly, the results were not too bad. If I wished to take a holiday, it was a condition that I provided an acceptable locum at my own expense and left an address where I could be contacted in case it became necessary to recall me. Even if one could afford to pay both for the holiday and locum, an acceptable locum anaesthetist was nearly impossible to find at that time. I took one week's leave during my 18 months' tenure of the post but was recalled on the evening of the fourth day. However, that was my own fault because I was imprudent enough to choose the end of August 1939, when the second world war was about to break out. The condition to provide a locum may seem quite unreasonable now but it was accepted as reasonable then because the hospital had no one else to call upon. The Royal Infirmary had a few honorary anaesthetists but this was a luxury which only main teaching hospitals could command, for the simple reason that those who practised anaesthesia at that time had to depend for their living on fees from private work, and private surgery in Edinburgh was almost entirely in the hands of the chiefs at the Royal Infirmary. Just before the war the Royal Infirmary also appointed two resident anaesthetists, Drs. Leslie Morrison and Alastair McKinlay and a little later a third. I am not telling you of my beginnings in anaesthesia in order to impress you with the fact that I had to

work hard and, what is really more to the point, without respite, and that my only means of facing the considerable responsibilities of my job, without any teaching or guidance, was to jump in at the deep end. My purpose in recalling these early days as an anaesthetist is to remind you how far our speciality has come in the course of one generation.

When we consider the reward which was the lot of anaesthetists in those days — a standard fee in private practice, even for those at the top of the tree, was two or three guineas, a fee of five guineas being reserved for major operations or very rich patients — the younger among you could be excused for thinking that the relationship between surgeon and anaesthetist must have been virtually one of master and servant, but this is not quite true. Even then there were surgeons who were far-seeing enough to foresee that advances in anaesthesia could lead to advances in surgery, and for this reason we were encouraged. I remember particularly two surgeons who impressed on me from the beginning that anaesthesia could become a speciality in its own right but only if able young men could be persuaded to interest themselves in its further development. However, many surgeons of that period were still flamboyant and knife-happy characters who tended to look on anaesthetists as second class doctors, although perhaps indispensable. You know the sort of fellow who claims to be ambidextrous, although in reality he is sometimes ambisinistrous.

I have little doubt that the second world war, although tragic in most of its implications, was an ill wind which blew anaesthesia some good. It accelerated its progress towards becoming a recognised speciality, a process which I feel sure would otherwise have taken longer. Soon after joining the army I was posted as anaesthetist to a mobile maxillo-facial surgical unit with the rank of major. You may well think that this was rapid promotion considering that I had been in the speciality only a relatively short time and that I was entirely self-taught. However, I was made to earn my money. My unit worked in close co-operation with a Canadian neuro-surgical team and when things became a little hectic, their anaesthetist became a psychological casualty. He was carted off and there was no replacement. This meant that I had to cater for the two neurosurgeons as well as the four surgeons of my unit, two plastic and two oral. So, when our sector was

in action, I looked after six anaesthetised patients simultaneously and single-handed, except for my batman/orderly, one Dai Rees from the Welsh valleys — scarcely a desirable arrangement, but there was no alternative and we got by without accident. I should say that the Canadian anaesthetist was ultimately replaced, on the day following the end of the campaign. His presence, however, proved useful even then because he helped us to make up a school at liar-dice. Anyway, the Services accepted the principle that all specialists, whatever their speciality, should command equal rank and pay. Equal rank and pay generally mean equal status and it is a natural human trait to do one's best to justify the status one has acquired, as much to protect one's self-respect as one's self-interest. As the war escalated the services required an increasing number of specialist anaesthetists but these were not immediately available. In an attempt to supply this need, training facilities were set up, although these were, of course, inadequate by present day standards and, in some instances, it was a case of the blind leading the blind. Many young service doctors who might never have done so in other circumstances turned to anaesthesia and became interested in the subject. This resulted in a ready-made nucleus of doctors with some experience in anaesthesia returning to civilian practice at the end of the war. There were no immediate openings to absorb them, but the start of the National Health Service was only round the corner and a postgraduate scheme for returning service doctors bridged the gap.

With the inception of the Health Service the first steps towards adequate anaesthetic staffing of our hospitals were taken and thus our speciality, as we now know it, was born. To begin with service commitments still taxed the whole-time anaesthetic staff to the limit. The cause of this was not so much that the establishment was grossly inadequate as that surgeons tended to take the view that there was now a sufficient number of paid anaesthetists (compared with what they had previously been used to) and that this should entitle them to expect anaesthetic service more or less at any time without being tied by pre-arranged schedules. Some surgeons took a little time to be disabused of this viewpoint; the myth of the second-class doctor was not yet dead. However, most of our surgical colleagues recognised and readily gave credit for the considerable strides we

had taken towards making anaesthesia safer and improving operating conditions. Some even gave us credit for making previously impracticable operations practicable, but in general these advances were judged as purely technical ones and this was to some extent true. If we were to avoid being classed as technicians, although increasingly expert ones, and be accepted as clinicians, we knew we would have to go much further than we had done already towards increasing the scope and safety of surgery. Furthermore, although we had no doubt that the safety of the patient during and after an operation would always have to be our first objective, we began to realise that our particular training and experience, as well as the approach to patients and problems which is peculiar to anaesthetists, could enable us to contribute to medical practice in a wider sphere. However, all this would in many instances require some basic research which would involve the use of investigative methods and equipment in which we had not been trained. When we set out to specialise in anaesthesia there was no precedent for such training and, in any case, the more sophisticated methods of monitoring physiological changes had not even been thought of at that time. Later on our whole-time contracts allowed no time for anything beyond supplying an anaesthetic service for the hospital. Under these conditions research other than simple clinical investigation was impossible. We realised that what was hitherto purely and simply a service department would have to achieve University recognition before anaesthesia could become a progressive speciality which could hold its own in the company of the long-established specialities. University recognition to members of the department other than the director was eventually achieved in Edinburgh in 1955. This was a milestone in the advance of anaesthesia because it was now possible to plan a systematic programme of teaching and research to run parallel with an efficient patient service.

Another landmark had been reached two years earlier, in 1953, when we formed our own Faculty within the London College of Surgeons. This gave us the right to grant our own Fellowship to those anaesthetists whom we regarded as fit to uphold the standards to which we aspired. This was an eminently important event which contributed much towards making anaesthesia a recognised speciality, in contradistinction to a convenient service welcomed by surgeons, because it enabled

us to lay down standards for the diploma examination which, per se, fixed the minimum standards to be satisfied by applicants for consultant posts. This was necessary in order to silence an undercurrent of complaint within the profession that anaesthetists secured consultant positions too easily, a feeling which tended to keep the myth of the second-class doctor alive. This demonstration of our intent to set a high standard for consultant anaesthetist undoubtedly strengthened our position among the specialities but, more recently, I have wondered whether now we are not going too far in this respect. The standards set by the examination have been progressively modified to a point where the question comes to mind whether now these standards have not become a status symbol to impress our colleagues in the other specialities. This would not matter too much were it not for the fact that this course is beginning to have adverse effects. I am sure we all know young colleagues, first-class practical anaesthetists, who are willing and able to manage long and sometimes tedious operating sessions, day after day, but whose chances of becoming established in the speciality are stymied because the examination, most often the first part, has become a stumbling block which ultimately discourages them. I wonder whether we can afford to lose these recruits, particularly at a time when we, in common with other specialities, are beginning to feel the pinch. It is easy enough to soothe one's disquiet by saying that standards must be kept high and that these colleagues must, unfortunately, be poor examination subjects. Of course we must maintain high standards but these standards must remain in keeping *with* practical problems. I believe that in the past few years the examination has become biased in favour of what has been termed medical science. I am sure none of us would underrate the importance of this aspect of any speciality but we also must not forget that, for every scientifically orientated anaesthetist, we must produce many practical ones who are willing and able to shoulder successfully the daily grind. I believe we are in danger of growing short of this type of anaesthetist and should like this shortage become acute, the speciality could lose ground even more rapidly than it has advanced up to now.

At present anaesthesia is at a point in its progress where it has become accepted as a worthy

speciality by those of our colleagues who are in a position to judge our contribution to patient care. It is now up to the younger ones among us to see to it that anaesthesia with all its allied interests will hold its place. By this I do not mean to infer that I doubt their ability to do this; of course I have no such doubts. Our younger colleagues are in many ways better equipped for it than we were. For one thing, they started their careers in a more settled atmosphere which offered definite prospects and this was a practical and psychological advantage we did not have. This does not mean that anaesthetists will face fewer problems in the years to come, only that their problems will be different and perhaps more difficult to cope with. In the last decade or so we have spread our wings and taken on the responsibility of treating patients. This involved more than just an additional workload, it involved a degree of responsibility and an ability to make clinical decisions which, as a group of doctors, was relatively new to us and is likely to bring us into conflict, at times, with our colleagues in other specialities and at times with ourselves. Many anaesthetists, particularly the older ones amongst us, would not have envisaged such a turn of events when they decided to go in for anaesthesia. We must also admit that anaesthetists, in regard to their psychological make-up, have generally not been aggressive or assertive people and in the past the speciality would hardly have attracted that type of person. To cope with the inevitable stresses of our new position within the medical community, it may become necessary for us to re-adjust to some extent our approach to dealing with others, although I trust with due regard to moderation, common sense and fair play. If we are successful in this respect, our standing with the rest of the profession will acquire a new dimension and then we will truly have earned the kind of recognition for which we have been striving.

In this part of the world we have been fortunate because we experienced the minimum of opposition to assuming full responsibility for the management of patients suffering from respiratory inadequacy but I would remind you that this is not so everywhere. In many places anaesthetists, although they assist in the treatment of these patients, do not have complete charge of them. There could be a number of reasons for this, such as insufficient staff or facilities, but in at least some instances it may be that they felt disinclined

to accept the additional burden and the responsibility that went with it. The fact that we have achieved full charge of these patients and made a success of it will not in itself ensure that our place in this field is necessarily permanently established. I sometimes see signs that we may yet be challenged and should this challenge succeed I have no doubt that it would be a serious set-back for our speciality. I believe the argument that anaesthetists worked out the principles of the various aspects of this form of treatment and set up and staffed units capable of carrying it out so successfully that it has become recognised as one of the major advances in medicine of the last decade will not indefinitely protect us from attempts to usurp us. This field came into the realm of anaesthetists not only because our training and everyday practice fitted us for it but because at the outset some of the younger and more active anaesthetists formed the concept and had the urge to follow it up, possibly because they felt that anaesthesia as it stood at that time restricted them to some extent in their function as complete doctors. Now, in turn, there are signs that some of the younger surgeons appear no longer content with gaining sound diagnostic acumen and operative skill and wish to make more use of the background in physiology which they acquire as part of present-day surgical training. Respiratory and intensive care in relation to trauma and post-operative complications is an obvious and ready-made field in which to use it. Surgeons and physicians know that we depend on them to refer these patients to us. At present they refer them because we have the necessary set-up and know-how but we would be hiding our heads in the sand if we felt safe in the belief that they are not capable of learning the necessary skills or creating the necessary facilities.

I trust that I have not given the impression of being pessimistic in regard to the future of anaesthesia. That would be quite wrong because I am, in fact, optimistic. I merely wished to state my view, for what it is worth, that there are aspects which could prove dangerous if met with complacency. Internal political problems will almost certainly confront us but if they are met, as I feel sure they will be, with both firmness and wisdom, anaesthetists will succeed in ensuring the future of their speciality.



ANAESTHESIA AND THE E.E.C. — SOME ASPECTS

When the European Economic Community was established by the signing of the Treaty of Rome in 1957, the six member states began to consider the arrangements they would have to make so that doctors could practise in them all. In order to discuss the methods by which diplomas, certificates and other qualifications might be harmonised, the European Union of Medical Specialists was formed. Each speciality set up a committee to agree the periods of training and the standards of practice required. The committee for anaesthesia is called in English the Monospecialist Section of Anaesthesia and Resuscitation. Dr. Patrick Shackleton and Sir Geoffrey Organe were the British observers at the first meetings. It was obvious even then that there were big differences to be resolved amongst the six member states — France, Germany, Italy, Belgium, Luxembourg and the Netherlands. At the beginning of 1973, the accession of three new members — Denmark, the Republic of Ireland and ourselves — has meant that nine countries now have to develop a training programme which will allow their own specialists to practise in any of the other eight.

The main purpose of the Treaty of Rome is to further the economic and political integration of Europe. Article 48 provides for free movement of labour to be achieved within a stated period, including the removal of any discrimination based on nationality in respect of employment, remuneration or other labour conditions. Article 57 provides for reciprocal recognition of degrees, diplomas etc. in respect of persons working in certain occupations, including the medical, paramedical and pharmaceutical professions.

The objects of the Treaty are achieved by means of *regulations* which are automatically binding on member countries and *directives* which each country is obliged to put into effect by enacting appropriate legislation. The Commission of the E.E.C. is required by the Treaty to draft these directives. There are three which concern the medical profession:—

(1) *Freedom to practice.*

When properly registered in his own country, a doctor will be free to establish himself in practice in any member state and to offer his services in a non-salaried or self-employed capacity.

(2) *Mutual recognition of diplomas, certificates and other qualifications.*

The granting of diplomas, both qualifying and postgraduate, must be so ordered, by legislation or other means, that they conform to accepted minimum requirements of training laid down by the Council of Ministers and must be recognised in all member states. This directive applies to salaried and non-salaried doctors.

(3) *Co-ordination of legislative and administrative procedures.*

This directive lays down the minimum requirements of training in the second directive. For a *qualifying diploma*, the minimum is 6 years of university training, including 5,500 hours of theoretical and practical training. For a *specialist diploma*, the minimum requirements are:—

- (a) the possession of a recognised qualifying diploma.
- (b) theoretical and practical training in suitable centres or institutions; in the case of anaesthesia, for a minimum period of three years.
- (c) the trainee's personal participation in the activities and responsibilities of the services concerned.

This last directive recognises the big differences which exist in social security schemes and professional ethics of the different states, but aims to start the process of co-ordination and harmonisation.

There are two steps involved in producing the directives:—

Stage 1 A directive is drafted by the Commission after consultation with the member governments and consideration by a working party. The matter

is then said to be at "Commission Level".

Stage 2 The draft directive is submitted to the Council of Ministers for approval. The Council of Ministers sends it to the Economic and Social Committee and to the Assembly for comment. Another working party is then set up. The directive is now at "Council level". If agreement cannot be reached at this level, or if it is of exceptional political importance, the matter may be referred to the Council's Committee of Permanent Representatives. The medical directives have now reached this stage.

The Permanent (or Standing) Committee of Doctors was set up in 1959 and has representatives of all the national medical associations of the member states. The B.M.A. represents the U.K. on this and on its 8 subcommittees.

The European Union of Medical Specialists, the U.E.M.S. or Union Européenne des Médecins Spécialistes, mentioned earlier, was set up before the Permanent Committee to co-ordinate the attitude of specialists towards the effects of the Treaty of Rome. It has an executive council of twenty members - 2 from the U.K., Mr. E.A.J. Alment, F.R.C.O.G., nominated by the Joint Committee, and Mr. R. Brearley, F.R.C.S., nominated by the B.M.A.

The Monospecialist Sections, of which anaesthesia and resuscitation form one, give advice and make enquiries about the specialities concerned and answer questions put to them by the executive council of the U.E.M.S. The minutes and resolutions of the Monospecialist Committee go to the U.E.M.S. and their decisions go to the Standing Committee of Doctors, who have direct access to the Commission as well as through the Economic and Social Committee. Observers from the U.K. were originally invited to attend the meetings of the Monospecialist Committee of Anaesthesia through the Association of Anaesthetists. After our accession to the E.E.C., the formal application to send representatives was made through the B.M.A., who approached the Royal Colleges and hence the Faculty of Anaesthetists. By mutual agreement, the Faculty and Association each send one representative, since each member state can send two. Sir Geoffrey Organe represents the Association and Dr. Douglas Howat the Faculty.

Two main decisions were reached in October 1972:

(1) The speciality of anaesthesia should be defined as embracing the following activities:

The application of the various techniques of anaesthesia.

Preoperative, peroperative and postoperative care, with the appropriate monitoring and therapeutic methods.

The treatment of respiratory failure.

Oxygen and inhalation therapy.

Blood transfusion, treatment by intravenous infusions generally and parenteral nutrition.

Resuscitation in all its aspects, including intensive care.

The treatment of pain.

Extracorporeal circulation.

Methods of extrarenal dialysis.

This is a very wide definition of the speciality. Not all these subjects are dealt with exclusively by anaesthetists at the present time and there can be few in this country who practise inhalation therapy or dialysis.

(2) The second decision concerned the period of training. A minimum of three years was agreed for the acquisition of the European Certificate of Anaesthesiology, which will permit a doctor to practise as a specialist in any of the nine countries of the Community and, by 1975, this period will be extended to four years. It is interesting to see what the various countries have already decreed as their periods of training (Table 5).

In *Belgium* the period varies from 3 to 4 years, according to the university. The title received depends on the university, but is usually "Specialist in Anaesthesiology". A law is being introduced to raise the period to 4 years throughout the country.

Denmark has a period of 7 years, but it is divided as follows:

one year of surgery and one of internal medicine.

four years of anaesthesia.

one year of work in a discipline connected with anaesthesia.

6 months of the 3 years not spent in anaesthesia may be devoted to pharmacology, physiology or biochemistry. The title given is Specialist in Anaesthesiology.

In *West Germany* the period is 4 years and leads to the title of "Doctor in Anaesthesiology". The German Society of Anaesthesia and Reanimation is anxious to increase the training period to 5 or

even 6 years, but has not been able to achieve this because of the shorter periods obtaining in most of the other countries of the Community.

In *France* the period of training at present is three years, but medical education is being reformed and, under the new system, changes may occur. The present period allows the acquisition of the Special Certificate for Anaesthesiology and Reanimation, registered by the Conseil de l'Ordre des Medecins. For hospital "internes", who have completed nine years of medical studies, specialisation can be achieved in two years. A certificate of competence is given if the candidate is going to pursue a career in general practice, or the title of "specialiste" is awarded if he is going to concentrate on anaesthesia and resuscitation.

Italy has three years of study; the title gained is "Specialist in Anaesthesiology".

In *Luxembourg* the same title is given after four years and in the *Netherlands* after 3½ years.

Conclusion

There are several differences which concern us in Britain. One is the rather mechanistic approach to training in the draft directives. The Germans and ourselves are not satisfied that the quantity of 5,500 hours in undergraduate training, or indeed of 3 or 4 years in postgraduate anaesthetic training, is in itself sufficient; the quality of training is also important. This view has been put forward strongly to the Commission by the British delegation through the Department of Health. The second matter concerns the question of specialist registration, which is found in all the other member countries, but has not yet been accepted here. We are exceptional in having no state control of training and education and registration; the responsibility is left to the General Medical Council and the Royal Colleges and Faculties. Lastly, and this is generally appreciated in our speciality, there must be provision for part-time training of women. This is likely to be accepted throughout the Community, provided that the total period of training is equivalent to that of full-time training. This has caused difficulty because in some countries part-time training is the rule, since the trainee keeps himself by engaging in private practice. In *Italy*, for example, there is no salary for a part-time trainee.

No final decisions can be taken without the agreement of all the countries of the Community,

but it is hoped that the medical directives can be approved by 1975. There is an obvious discrepancy between our six-year period of general and higher professional training recently laid down by the Faculty of Anaesthetists and the minimum three-year period required in the E.E.C.; some method of accreditation of specialists common to all must be found, but there can be no question of lowering the standards of training in this country.

Appendix: Pay

The relative levels of remuneration in the Common Market countries are interesting. Recently the author sent a questionnaire to one anaesthetist in each of the other eight countries to try to discover the method and rates of pay of the various grades of trainee and specialist. It is almost impossible to interpret the figures from the replies so far received, since the systems of payment differ widely. In most countries outside the U.K. the system of social security means that there is a "fee for service". Even when a specialist is salaried, he may receive extra for each patient whom he attends or anaesthetises. These extra payments may be paid direct to him or through a hospital "pool". In addition, private practice may play a large part in some countries (e.g. *Italy*) and a minor part in others (e.g. *Denmark*). Extra duty payments for junior and senior staff also differ from country to country. The cost of living and the levels of taxation vary, too, and make it almost impossible to assess the value of the money received. Several investigations are now being made into these problems. For example, the author understands that the British Medical Association has commissioned a report by a European statistician on doctors' salaries throughout the E.E.C. and expects to publish the findings early in 1975.

Too much reliance should not be placed, therefore, on the figures appended here. They have been calculated according to the rate of exchange prevailing in May, 1974. The figures for the U.K. are given first to make comparison easier. The others are given without comment; they have been supplied by anaesthetists from the countries concerned.

Salaries for each country — on following page

N.H.S. Salaries before 1st April, 1974

House Officer	£1914—£2208	(3rd year)
Senior House Officer	£2475—£2850	(3rd year)
Registrar	£2850—£3531	(5th year)
Senior Registrar	£3363—£4395	(6th year)
Consultant (full-time)	£5085—£7599	(10th year)
	£8991	(with "C" award)
	£10,892	(with "B" award)
	£13,176	(with "A" award)
	£14,949	(with "A"+ award)

Germany (£1 = 6dm approx.)

Trainee anaesthetist	£3996 (for 40 hour week)
Specialist	£6000—£6500
Chief of hospital department	£6000—£7992*
University Professor	£6000—£7992*

These are basic rates of pay. In addition, there are:

Children's allowances:

£40—£50 per month, according to experience.

Extra duty & on call allowances:

£2—£14 per period, according to length of time, working day or weekend, experience, etc.

Ambulance duties:

£2—£23 per period, according to length of time, working day or weekend, experience, etc.

Payments per item of service for specialists under social security scheme e.g. £1.50—£8, according to experience. The average anaesthetist earns about 1/4 to 1/5 of a surgeon's income.

* Usually all private fees are paid to the chief of department, who may plough them back into the Department or disburse them amongst his colleagues.

Denmark (£1 = 14kr approx.)

"Senior House Officer"	£4080*
"Registrar"	£5976*
"Senior Registrar"	£7488*
Assistant Professor	£13,440
University Professor	£14,916
Chief of hospital department	£15,104

Anaesthetists and general surgeons are paid more than physicians and other specialist surgeons, who are reckoned to have more opportunities for private practice.

* Up to £40 per month payable for heavy work-load.

France (£1 = 11fr approx.)

"Interne"	£1632
"Registrar"	£3816
Part-time (half-time) Assistant (i.e. Senior Registrar)	£4451

N.B. Assistant in surgery is paid £2669

Part-time (half-time) Specialist	£5711
plus approx. 1/3 of surgeon's private practice fees.	

Full-time Specialist	£5946—£9501
Chief of hospital department	

£7126—£11,894 according to experience.

The last two grades are allowed private hospital practice up to 30% of salary.

Ireland

Trainees	£2400—£4850 for 70 hour week
Extra duties over 70 hours paid	£0.85—£1.30 per hour
If no hospital accommodation,	£6 per week living-out allowance.
Extra for higher qualification	£300 per annum
Extra for D.A.	£100 per annum

Specialists receive the following payments for Health Insurance patients in Voluntary Hospitals:

Senior Anaesthetists	£11.98 per 3-hour session
Junior Anaesthetists	£8.75 per 3-hour session
Payment for Health Insurance patients	£0.87½—£2.50 according to operation

Italy

The systems of payment vary from region to region and sometimes even within the same town. Trainees are paid no salary and have to support themselves by private practice.

Belgium (£1 = 92fr B approx.) *

Trainees. Not all are paid. When they are, salaries begin at £1800.

Specialists are paid according to rank, part- or full-time practice, facilities for private practice etc.

University Professor £9,000 approx.

In some hospitals, payment is by salary, in some by item of service according to the social security payments, in others the doctor may claim fees directly from the patient. Salaries depend on rank and not on the specialty. Where payment is by item of service, the anaesthetist gets 30—50% of the surgeon's fee, but probably does more cases than the surgeon.

Private practice is allowed, unless the specialist has a contract specifically excluding it.

* These figures have been made available after April, 74.

Netherlands (£1 = fl6.25 approx.) *

Trainee	£4600
Specialist	£16,000—£24,000
Chief of hospital department	£24,000—£32,000
University specialist	£8150
University professor	£15,000

Most specialists engage in private practice, but some are appointed on fixed salaries. An anaesthetist's income varies between 1/2 and 1/3 of that of a surgeon.

* These figures have been made available after April, 74.

The first part of this paper is a summary of an article in "Anaesthesia": ref. Howat, D.D.C. (1974) *Anaesthesia*, 69, 211.

NARCOTIC ANALGESICS AND DELAYED GASTRIC EMPTYING DURING LABOUR

Unexpected regurgitation or vomiting with aspiration of gastric contents during induction of anaesthesia, remains an important cause of maternal death and this has been attributed to a delay in gastric emptying during labour.¹ This paper describes a study of gastric emptying in women during labour using the rate of paracetamol absorption following oral administration as an indirect measure of the rate of gastric emptying.

Paracetamol is a drug which is not absorbed to any extent from the stomach but is absorbed very rapidly from the small intestine. Therefore its absorption is directly related to the rate of gastric emptying.² In this study rapid paracetamol absorption was taken to indicate rapid gastric emptying while delayed paracetamol absorption was assumed to reflect delayed gastric emptying.

Paracetamol absorption studies were performed in twenty eight women during labour. After at least a four hour fast, each was given 1.5g of paracetamol as three Panadol tablets with 200 ml of water under standardised conditions. Blood samples were taken at intervals up to 8 hours and free paracetamol in plasma was estimated. The obstetric management of the patients was not influenced by their participation in the study. Narcotic analgesics (150 pethidine or 10 mg diamorphine) were administered intra-muscularly as required. The times of delivery and administration of drugs were noted.

Similar absorption studies were performed in ten women between two and five days post partum. Each patient had had a vaginal delivery of a live infant in the previous five days and each had received a narcotic analgesic as sedation during labour. Following the paracetamol ingestion, blood samples were taken for two hours.

The twenty-eight patients studied during labour fell into three distinct groups — twelve had achieved their maximum plasma paracetamol concentration before their first injection of narcotic; eight had received 150 mg of pethidine and eight had received 10 mg of diamorphine before their maximum paracetamol concentration.

The mean paracetamol absorption curves in these three groups of patients and in the women studied post partum are shown in figure 1.

Paracetamol absorption (and presumably gastric emptying) was rapid in the twelve women who had not received narcotic and in the post partum patients. Their absorption curves were similar to those observed in healthy non-pregnant volunteers.² In contrast, paracetamol absorption (and presumably gastric emptying) was markedly delayed in all the patients who had received pethidine or diamorphine.

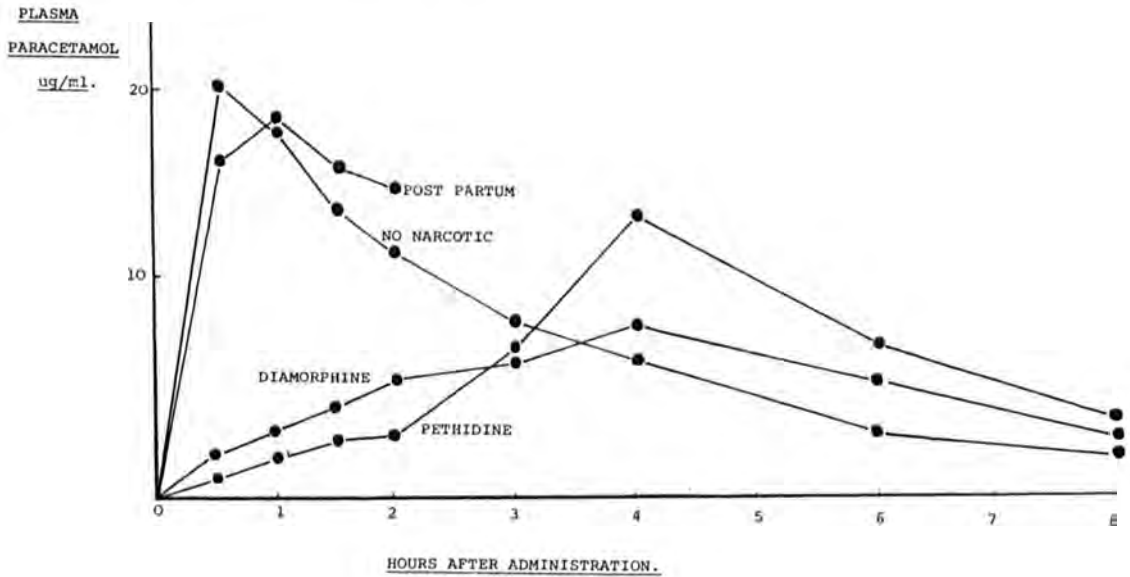
There was no relationship between delayed paracetamol absorption and the age or parity of the patient or the administration of an oxytocic or cyclizine. There was, however, a relationship between a delay in absorption and the proximity of delivery. The patients in the pethidine and diamorphine group were 2.6 ± 0.6 hours (mean SE) and 4.2 ± 0.9 hours respectively, before delivery, while the women who had not received narcotic were 10.6 ± 1.9 hours before delivery. Therefore, the observed delay in gastric emptying could be due to the narcotic or to the increasing distress of approaching delivery.

Further studies in healthy volunteers have confirmed that pethidine and diamorphine themselves delay gastric emptying and impair paracetamol absorption.

The authors of previous studies have not considered the possible effects of narcotics but all are in agreement that gastric emptying is impaired in labour. The present study suggests that pethidine and diamorphine, administered for the relief of pain, may be the major factor in producing this delay.

1. Report on confidential enquiries into maternal deaths in England and Wales: Department of Health and Social Security 1969.
2. Heading, R.C., Nimmo, J., Tothill, P., Prescott, L.F. (1973): The dependence of paracetamol absorption on the rate of gastric emptying. *Brit. Journal of Pharmacology*, 47, 415.

FIGURE 1. MEAN PARACETAMOL ABSORPTION CURVES.



O. M. WATT

When the Scottish Society of Anaesthetists was founded in 1914 it boasted a membership of fourteen anaesthetists — representing virtually the entire Scottish speciality. Even this modest number compared not unfavourably with the situation in London at about the same time. Dr. J. Blomfield noted in his "Anaesthetics in Practice and Theory" that in 1922 the 12 London teaching hospitals employed only 27 specialist anaesthetists.

There are, sadly but not unnaturally, only a few colleagues still with us who were engaged in anaesthetic practice in the thirties, and even fewer who could claim to have been anaesthetists in the twenties. A study of the Minutes of the Scottish Society would suggest, at least in relation to Glasgow and the West of Scotland, that the only surviving anaesthetists who joined the Society in the twenties are Dr. W. Primrose (1927), Dr. Elaine Stocquart (1928), and Dr. I.C. Dewar (1929). From the Minutes it is also apparent that although 1974 marks the 60th Anniversary of the Society, because of the two wartime breaks in continuity — 1914-19 and 1938-50 — we shall indeed be holding the 50th Annual General Meeting in 1975.

With this date in mind this paper is being written not only as a small tribute to those early specialists but also in the hope that our young anaesthetists of today may better appreciate the difficulties and frustrations faced by their forbears, working in comparative isolation from their fellow anaesthetists. It may also help us to understand the contributions made by those pioneers to the status of their speciality in the years ahead. But for the calibre of many of those early "chloroformists" it is very doubtful if our speciality would have been granted equality with the major specialities on the introduction of the National Health Service.

By far the most popular anaesthetics in the 1920's, and indeed for many years thereafter, were the well-tryed Open or Perhalational Ether using the Ogston Mask and Open Chloroform administered commonly via the Schimmelbusch Mask.

The continued employment of the latter drug was still stoutly advocated by the majority of Scottish anaesthetists despite its virtual abandonment in practice south of the border. It is noteworthy that its popularity was in no place greater than in Glasgow, despite its having been introduced by an Edinburgh professor!

A large proportion of the anaesthetics administered in hospitals in those days fell within the sphere of the junior medical staff. The more senior doctors who had made a special study of the subject were few in number and their services greatly in demand by the nursing homes to the consequent detriment of the hospital service. The remuneration they received from the hospitals was incredibly paltry, and having a natural and commendable desire to feed and clothe their families they felt obliged to assist their surgical colleagues in private practice. For this private work they were fortunate indeed if they could obtain a fee of £1—£3 for the anaesthetic care of a patient undergoing even a most major operation. The anaesthetics administered by the young housemen were limited to the drop method of ether or chloroform, (or a mixture of these two drugs) and there is little doubt the lack of practical training and experience of those young doctors contributed largely to the relatively high operative mortality and post-operative morbidity of those times. Even in the teaching hospitals which employed specialist anaesthetists the house surgeons were expected to take over the official anaesthetists' lists in the late forenoon — a practice not uncommon even in the writer's student days (1938-41). In the peripheral hospitals surgeons rarely if ever had the assistance of an experienced anaesthetist, and all anaesthetics, major and minor, were the exclusive responsibility of the Residents.

As an alternative to open ether or chloroform many anaesthetists made frequent use of the vaporisers then in fashion, viz. Junker's Inhaler (1867) for chloroform and Shipway's Apparatus (1916) for ether and/or chloroform. These were, in the days before endotracheal intubation was practised, particularly useful in oro-pharyngeal

operations in which the use of a face-piece was impossible. Their major disadvantage lay in their delivering an unknown concentration of anaesthetic vapour; a concentration to a great extent proportional to the strength of the anaesthetist's wrist, and to the vigour and frequency with which he squeezed the hand-bellows. Some there were, however, who preferred to use the technique of administering WARM ether vapour, as advocated and devised by the courageous inventor of the Pinson Ether Bomb (1921).

For shorter operations one could ring the changes by using Clover's Inhaler (1877) or Hewitt's Modification of Clover's Inhaler (1901), or even employ as an alternative the widely debated advantages of ethyl chloride given by a closer inhaler. All of those closed inhalers required much experience and practice before they could be used with safety and efficiency, and their employment was rightly considered to be strictly the domain of the doyen.

However, during the twenties the more sophisticated institutions were extending the range of their anaesthetic service by acquiring the then current model of the Boyle apparatus, a machine the crudeness and potential danger of which would appal the present-day anaesthetist. As reducing valves had not yet been modified for anaesthetic use, although in common use industrially, the flow of gas from the cylinder was controlled by a so-called fine adjustment valve, the inefficiency of which necessitated its being frequently and constantly adjusted at the cylinder if one desired anything like a steady and uniform flow of gas. The flowmeter in current use was the Water sight-feed meter devised by Boothby and Cotton in 1910. Although this had the advantage of humidifying the gases to some extent before they reached the patient's lungs, its inaccuracy as a meter was, by modern standards, appalling. Anaesthetic apparatus in the twenties, to an even greater extent than to-day, was expected to last indefinitely, particularly by the authorities responsible for its purchase. Consequently, even although the Coxeter dry bobbin meter was introduced about 1931, many Glasgow hospitals were still using Boyle Machines fitted with "bubble bottles" as recently as 1940. Until the muscle relaxant drugs had been introduced, ether had to be administered, to obtain adequate relaxation, in concentrations almost incredible to present day anaesthetists. The necessary high flow

of gases bubbling through the ether bottle quickly caused freezing of the condensed water vapour on the outer surface of the ether bottle. The resultant rapid fall in the temperature of the liquid ether ensured a progressive lowering of the concentration of ether vapour being delivered to the patient, causing embarrassment to the anaesthetist and inducing hypertension in the surgeon struggling to close the peritoneum against the inexorable thrust of abdominal contents. To obviate these complications the ether vaporising bottle was provided with a surrounding metal canister into which the more prudent anaesthetist poured a considerable quantity of warm water immediately prior to the induction of anaesthesia.

In addition to the problems of maintaining a steady gas flow and of constantly counting the bubbles in the flow meter, the anaesthetist of the twenties had daily to face hazards of alarming proportions. The rubber tubing assembly connecting the gas cylinder to the flowmeter inlet was merely pushed on at each end. There was, therefore, an ever present risk of the tubing being incorrectly connected. The risk was the greater as the quality of the tubing supplied was such as to ensure its permanent expansion at each end after a few weeks' use, with an increasing tendency for it to blow off at one or other end. An early modification in the interest of patient safety was the introduction of tubing assemblies of a specific colour for each gas e.g. Nitrous Oxide tubing Black; Carbon Dioxide Green; Oxygen White. These colour codes were devised to match up with the cylinder colours in use prior to 1953; that is, Black for nitrous oxide cylinders; Green for Carbon Dioxide; Silver for Cyclopropane; etc. While the cylinder manufacturers deemed it essential to paint each gas cylinder with a colour which would clearly denote its contents even to the illiterate, it is extraordinary but true that many hospital authorities, in the interests of asepsis (presumably), insisted on the body of each cylinder being completely swathed in a linen bag before the cylinder was taken into the theatre or anaesthetic room. This practice, which effectively prevented the anaesthetist from visually checking the gas cylinders, had consequences which may be imagined even by the super-optimist. It may now be appreciated by today's young anaesthetist that the wide popularity of the "open drop" method of administering ether and chloroform was based not on old fashioned prejudice or a disinclination to

employ more up-to-date techniques, but quite simply on an impartial assessment of relative risks involved.

Endotracheal intubation was a theoretical rather than a practical technique in the interwar years, the anaesthetist maintaining a clear airway in his patient with the assistance of a Philip's, Hewitt's or Water's airway and continuous manual support of the patient's jaw. As this naturally involved the anaesthetist's head being in close proximity to that of his patient it was inevitable that the anaesthetist inhaled a high concentration of the anaesthetic vapours throughout the duration of each anaesthetic. Especially was this so when open ether or open chloroform techniques were being employed. In addition, ventilation of operating theatres was virtually negligible, and both the temperature and relative humidity of the theatres were very much higher than modern practice would either tolerate or allow. All of this must have contributed to an alarming degree of atmospheric pollution in the operating theatre, which makes it interesting to speculate on the incidence of ill-health or infertility in the anaesthetists of those days. While statistical information on the latter would be difficult and embarrassing to obtain, it is obvious that many of them survived to a grand old age, and not a few are still enjoying good health after many years on retirement pension.

The remuneration of the anaesthetists of those days must certainly have dissuaded many young aspirants from this important branch of medical practice. The Scottish Society on several occasions discussed ways and means of improving an intolerable situation in which the part-time anaesthetist was entirely at the mercy of the surgeon who employed him. Although those surgeons were steadily becoming more aware of the inestimable advantage, to their patients and to themselves, of having the services of an experienced anaesthetist, it seems that in general they considered he merited only a very small percentage of the surgeon's fee. As the anaesthetist's only other source of income was his honorarium from the hospital in which he held office, and as this honorarium was a pittance even by standards of those times, he was in no position to show any signs of militancy. It is to the credit of many of those early specialists that despite the poor financial return they continued in their endeavours to ensure a safe and pleasant anaes-

thetic for their patients whether in hospital or nursing home. It is even more worthy of notice that so many, despite very active professional lives, found time and energy to make very real contributions to the science of anaesthesia. While no discourtesy is intended to others who made their mark in those early days, the following may in fairness be given mention as representatives of the Glasgow pioneers:

DR. DAVID LAMB was appointed anaesthetist to the Victoria Infirmary, Glasgow in 1898 — the first post of its type in Scotland. A founder member of the Scottish Society he made many contributions to the anaesthetic literature of his day. The first meeting of the Anaesthetic Section of the British Medical Association was held in Glasgow during the Annual Meeting of 1922, and Dr. Lamb had the deserved honour of giving the opening address. He chose as his subject the problem of postoperative pulmonary complications and condemned the doctrine of the time, that although patients occasionally die on the operating table from chloroform anaesthesia, when ether is used many more die as a result of postoperative pulmonary complications. He suggested that even the most ardent advocate of this theory would be surprised, and startled, if he studied the annual mortality from chloroform in Glasgow.

DR. HARRY PRESCOTT FAIRLIE was appointed anaesthetist to Glasgow Royal Infirmary in 1910, and until 1918 was the sole anaesthetist in this large hospital. For some 27 years he was the most renowned and respected anaesthetist in Glasgow, if not indeed in Scotland, and his skill was in great demand by almost every Glasgow surgeon, and by many further afield. Despite his busy practice he found time to write many excellent papers on aspects of anaesthesia. He was the joint and later sole author of Ross and Fairlie's "Handbook of Anaesthetics" which, for many years, was an essential part of every house surgeon's bookshelf. Dr. Fairlie was President of the Scottish Society; President of Anaesthetic Section of the B.M.A.; and President of the Anaesthetic Section of the Royal Society of Medicine — all of these offices being held within a span of eight years. He did much, by example and teaching, to break down the traditional Scottish adherence to chloroform, the ill effects of which

he fearlessly exposed despite formidable opposition in high places.

DR. W.B. PRIMROSE began his thirty-three years' service in Glasgow Royal Infirmary in 1925. During this long period of service he wrote widely and eruditely on anaesthetic and allied subjects. In 1934 he demonstrated to the Scottish Society an apparatus for closed circuit ether incorporating many novel features: A strong solution of caustic soda was utilised to absorb the carbon dioxide; the oxygen was conveyed directly to the patient's mouth; resistance to respiration was minimal; and the machine was used in conjunction with Dr. Primrose's cuffed pharyngeal tube, a precursor of the cuffed endotracheal tube. A year later (1935) he was elected President of the Scottish Society delivering his Presidential Address under the title — "Closed Anaesthesia using Cyclopropane".

DR. I.M. CAMPBELL DEWAR who retired in 1969 was associated with the Victoria Infirmary, Glasgow for the record period of 41 years. Appointed as anaesthetist there in 1928 he played a major part in organising the Victoria's anaesthetic service leading in 1935 to its being the first Scottish hospital to insist that all anaesthetics in the Infirmary be administered by trained anaesthetists. The effect of this foresight on the mortality rate was clearly demonstrated within a few years. Prior to 1935 when many of the anaesthetics were given by House Surgeons, the average mortality was 1 in 840, and this was comparable with any of the other city hospitals; between 1935 and 1947, when all anaesthetics were administered by experienced anaesthetists, the mortality fell to 1 in 3,100, a reduction of some four hundred per cent.

Dr. Dewar joined the Scottish Society in 1929, and his services to anaesthesia were widely recognised by his colleagues. He was elected a foundation fellow of the Faculty of Anaesthetists soon after its being constituted; he is a past president of the Scottish Society, and served on the Councils of the Association of Anaesthetists and Anaesthetic Section of the Royal Society of Medicine.

DR. ELAINE STOQUART still takes an active interest in the speciality even in her fifteenth year of retirement, and the writer is indebted to her for much of the information in this paper. She was appointed anaesthetist to the Glasgow Eye

Infirmary in 1924, and two years later accepted similar posts in Glasgow Royal Infirmary and in the Royal Hospital for Sick Children, Glasgow. She was almost certainly the first Glasgow anaesthetist to play a part in the closure of a Patent Ductus Arteriosus and in a Pneumonectomy in a small child; it is worth noting that these operations took place in 1934, when open ether was the anaesthetic of choice and when endotracheal intubation, certainly of infants, was a technique practised by few, if any, anaesthetists. A more regular attender at the meetings of the Glasgow and West of Scotland Society of Anaesthetists than many more half a century younger, her only concession to advancing years has been to give up her life-long interest in horse-riding — and this at an age at which most of her contemporaries would be pleased to have sufficient energy to indulge in the more normal pursuits of the elderly.

It is hoped that this short chronicle of the early days of anaesthesia and anaesthetists in Glasgow may encourage others to make a similar record of the patriarchs of anaesthesia in other parts of Scotland. Most Scottish anaesthetists are familiar with the names of, for example, Ogston and Ross McKenzie of Aberdeen; Ross, Howard Jones, Wevill and Gillies of Edinburgh. It would be interesting to all of us to learn more about these pioneers and the problems with which they were faced. It would be but fitting at this time to show our respect and appreciation of the men and women who, in the twenties and early thirties, laid the foundations of the speciality of anaesthesia in Scotland.

SYMPOSIUM ON SEPTIC SHOCK

SEPTIC SHOCK

A. P. M. FORREST

Classically shock has been defined as a state characterised by arterial hypotension, oligaemia, mental changes, cold cyanotic extremities and weak pulses, due to lack of circulating blood volume, either from hypovolaemia or cardiac pump failure. Recent knowledge that redistribution of blood volume as a result of capillary stagnation also can cause shock has drawn attention to the importance of the microcirculation in the shock syndrome, and lack of tissue perfusion with cellular malfunction are now regarded as its primary components.

Septic shock can be defined as shock occurring in patients with septicaemia. However, a positive blood culture in itself is insufficient evidence that shock is due to sepsis. Haemorrhage and fluid loss may also contribute, and in the surgical patient these must be eliminated before accepting that shock is solely of septic type.

Septic shock is due to the liberation of endotoxins bound to the protein of the bacterial cell wall. Their effects include activation of the complement system, release of kinins, other vasoactive peptides and histamine, catecholamines and serotonin. These results in stagnation in the microcirculation which in turn cause redistribution of blood, effective reduction of blood volume, capillary membrane changes and cellular hypoxia. Anaerobic glycolysis (resulting in lactic acidemia), failure of energy production, and of the sodium pump result in "sick-cells" which ultimately fail irreversibly.

These cellular effects are particularly critical in those organs which normally effect responses which protect man against reduced tissue perfusion: the lung, kidney, heart and adrenal. Those which occur in the lung (vasculitis, enlargement of alveolar membrane, physical changes in

surfactant) are particularly important as they result in ventilation defects and deficient oxygenation.

The nature of the syndrome varies according to the type of infection, its source and the presence of predisposing factors such as cirrhosis of the liver, diabetes, immunological defects, steroid therapy. Gram positive infections usually are fulminating, but gram negative septicaemiae, for example due to enterobacteria, pseudomonas, or bacteroides, are commonly silent. So also may their sources, usually from urinary, gastrointestinal, generative or respiratory tracts, be obscure. Difficulty in the diagnosis of impending septic shock due to gram negative bacteraemia is enhanced by the variability of its haemodynamic effects. The initial development of a hyperdynamic state with low peripheral resistance, high cardiac output, normal central venous pressure and normal blood volume delays recognition. Awareness of the risk and careful monitoring of the urine output, the mental state and blood lactic acid are the best guides to development of the syndrome.

The principles of treating septic shock include maintenance of the circulation by adequate crystalloid and colloid replacement, careful monitoring of acid base state and vigorous treatment of infection. In gram negative infections early isolation of the organism is unlikely and in the absence of precise information of sensitivity gentamycin and lincomycin are the antibiotics of choice. Drainage or eradication of the source of infection is also important.

Additional support of essential organs is a necessary part of treatment. Isoprenaline may be used to increase cardiac output, phenoxylbenzamine to decrease peripheral resistance or

noradrenaline to increase it. Maintenance of an adequate PaO_2 is of fundamental importance, if necessary by ventilation; and the administration of mannitol or frusemide may be required if oligemia is present. Corticosteroid therapy in large doses (2–6 g/day for 2–3 days) is recommended, but its efficacy is unproved. The place of insulin has also to be defined.

Survival from septic shock is a rare event, and seldom exceeds 10%. In the lack of specific therapy meticulous monitoring and the rational use of supportive therapy assume a critical role in saving life. Yet facilities for the intensive care required are not yet generally available even in our major teaching centres.

MANAGEMENT OF SEPTIC SHOCK INCLUDING PULMONARY COMPLICATIONS

Dr. I. McA. LEDINGHAM

During the period 1968–71 data from the Intensive Therapy Unit at the Western Infirmary, Glasgow, revealed a disturbing high mortality amongst patients presenting with the shock syndrome. The mortality was particularly high in those with septic shock – 70% of the total series of 80 patients (McArdle, MacDonald and Ledingham, 1974). Clearly this problem merited further clinical investigation and on 1st May 1971 an interdisciplinary shock team was established (Ledingham, McArdle, Fisher and Maddern, 1974) consisting of four doctors and four technicians. Two doctors and two technicians were available to answer shock calls on alternate weeks.

During the first year of the prospective study 110 patients were referred to the shock team. Of these, 66 were referred from surgical units, 26 from the Accident Service and 18 from medical units. The majority of the patients presented as a consequence of sepsis, haemorrhage or severe hypoxaemia; other aetiological factors included hypovolaemia, myocardial infarction, pulmonary embolism and drug ingestion. Mortality exceeded 70% in the septic and cardiogenic shock groups and was lowest in those attributable to fluid depletion and drug overdosage.

In the septic shock group 35 patients presented during the first year of the prospective study. The mean age of the group was 57 years and there were 10 long-term survivors (overall mortality – 71%). There was no significant difference between

survivors and non-survivors in respect of age but the source of infection appeared to be of importance. No patient with peritonitis arising from the large bowel disease (and only one with small bowel disease) survived while, by contrast, patients with gallbladder disease or gynaecological sepsis did well. Others (Neely, Berry, Rushton and Hardy, 1971) have shown a similar preponderance of high-risk patients amongst the general surgical population as compared with e.g., patients with sepsis of urological or respiratory origin.

Dehydration, hypoxaemia, acidosis and cardiac arrhythmias complicated the response to resuscitative measures in the septic shock group and mortality appeared to be significantly related to the following factors:

1. duration of shock
2. failure to eliminate sepsis
3. inappropriate antibiotic regimen
4. acute fatal cardiac arrhythmias
5. progressive cardiorespiratory failure

The latter problem may be related to a number of associated disturbances including disseminated intravascular coagulation, a condition diagnosed by the presence of severe thrombocytopenia and elevations of prothrombin time, partial thromboplastin time and fibrin degradation products. Pulmonary gas exchange rapidly deteriorates and if intermittent positive pressure ventilation is not instituted at an early stage death from respiratory failure occurs.

On the basis of the observations made during the first year of the study changes in the management of septic shock were undertaken. These are summarised below:

1. An aggressive approach to surgical drainage
2. Acute early haemodynamic support — intravenous fluids and various pharmacological agents as indicated, including digoxin, isoprenaline and thymoxamine
3. Appropriate antibiotics in adequate doses — a combination of gentamycin and lincomycin is used most frequently
4. Early intermittent positive pressure ventilation with additional oxygen as indicated by blood gas analysis

As a result of these therapeutic changes the mortality during the past eighteen months has fallen to 35%. Moreover the pattern of mortality has altered. Few patients die during the phase of resuscitation; mortality now occurs many days after the original shock episode as a result of progressive multiple organ failure.

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HAEMODYNAMIC CHANGES IN SEPTIC SHOCK

Dr. D. B. SCOTT

In its pure form when uncomplicated by hypovolaemia, septic shock causes characteristic change in the circulation. The main feature is arterial hypotension which is due to a decreased peripheral resistance with vasodilatation the cardiac output remaining at or near normal. There is thus a failure of normal vaso-motor control. Central venous pressure remains in the normal range provided cardiac failure does not occur due to the direct action of the bacterial toxins on the myocardium. In the absence of respiratory infection arterial oxygen tension may be normal or decreased, and carbon dioxide tension tends to fall as the patient hyperventilates to counteract the metabolic acidosis.

Frequently the picture is complicated by concurrent hypovolaemia which triggers the

normal vasoconstrictor effects seen in hypovolaemia. It is often not until the hypovolaemia is corrected that the underlying septic shock becomes apparent. Arterial hypoxaemia may appear due to over-hydration or to the "shock lung syndrome".

Vasoconstrictors such as non-adrenaline and dopamine cause an increase in arterial pressure and cardiac output and frequently urine output is also increased. Isoprenaline due to its lack of alpha-receptor effects increases cardiac output but not arterial pressure or urine flow. Cortico-steroids even in massive doses have little if any significant effect on the circulation.

The overall mortality is very high and it would appear that the toxæmia affects the ability of the cells to extract oxygen from arterial blood.

BACTERIOLOGY OF SEPTIC SHOCK

Dr. J. D. SLEIGH

Each year, the Western Infirmary, Glasgow, admits about 21,000 patients and the diagnostic bacteriology laboratory handles some 1,000 sets of blood cultures. Each set comprises a pair of bottles, one containing a broth for the growth of aerobic organisms, the other a medium for the cultivation of anaerobes.

The incidence of bacteraemia in a 3 year period (1971, 1972 and 1973) was approximately 3 per 1,000 admissions and this is similar to the findings reported from other general hospitals (Murdoch, et al., 1968). Therefore, some 70 patients annually are found to have a bacteraemia either on admission or subsequently during their stay in hospital.

The organisms most often isolated from the blood are the aerobic Gram-negative "Coliform" bacilli (escherichia, klebsiella, proteus species and the like) and they are responsible for around 50 per cent of the positive cultures. Seventeen per cent are due to *Staphylococcus aureus*, commonest in patients with bone and joint infections, and bacteroides species account for a further 10 per cent.

These Gram-negative non-sporing anaerobic bacilli have been the subject of much recent attention and their clinical importance has been underestimated in the past. Improvements in bacteriological technique have facilitated their isolation but, nevertheless, it is easy to acquire an out-of-sight/out-of-mind attitude to these anaerobes which comprise more than 99 per cent of the human faecal bacteria (Lancet, 1973).

Treatment should be prescribed after consultation with the bacteriologist and in the light of the results of the antibiotic sensitivity of the causal organism. However, it is often necessary to initiate therapy on a best-guess basis before this information is available. A popular combination is an aminoglycoside antibiotic, preferably gentamicin, and lincomycin. The former drug, which has a wide spectrum of activity, is particularly effective against "coliform organisms" and the latter is currently the drug of choice for treating bacteroides infections. Whenever possible

treatment with gentamicin should be controlled by assay of the amount of drug in the patient's serum, not only to avoid possible toxicity but also to ensure that adequate therapeutic concentrations are being attained (Noone et al., 1974).

Not all patients with bacteraemia become shocked but this outcome is more likely when the infection is due to Gram-negative bacteria. As many as half of the patients with bacteraemia due to "coliform organisms", and one third of those with bacteroides species as the infecting organism develop shock whereas this complication occurs in only one patient in ten suffering from bacteraemia due to *Staphylococcus aureus*. When bacteraemia is accompanied by shock the disturbance is attributed to endotoxin or other microbial products. Endotoxin is the lipopolysaccharide present in the cell walls of Gram-negative bacteria and its toxic properties are believed to reside in the phospholipid part of the molecule — the so-called "Lipid A".

Endotoxin from the lumen of the intestinal tract is normally removed by the cells of the reticulo-endothelial system in the liver but if this mechanism fails either because of an overwhelming endotoxaemia initiated from a septic focus (e.g. in faecal peritonitis) or liver failure (e.g. in hepatic cirrhosis) the uncleared endotoxin increases the permeability of the intestinal wall and mobilises more endotoxin from the intra-intestinal flora. In this way, endotoxaemia, once established, can become self sustaining and so produce fatal shock (Fine, 1972).

It is possible to estimate the level of circulating endotoxin by employing the limulus lysate coagulation test. In this test, the patient's plasma is added to a lysate prepared from the disintegrated amoebocytes (blood cells) of *Limulus polyhemus* (the horseshoe crab); endotoxin produces gelation of the lysate. It is claimed to be an accurate, reproducible, specific and sensitive test with the ability to detect endotoxin in picogram amounts. (Fossard et al., 1974).

There has been much speculation about the method whereby endotoxin produces its profound

physiological effects in man and experimental animals. It has been noted that the effects of endotoxin are similar to those that can follow antigen-antibody reactions *in vivo* and it has been postulated that there might be a common mediator. Endotoxin is an efficient activator of the complement reaction sequence although the initial stages are bypassed and the cascading system is triggered via the alternate pathway. However, "anaphylatoxins" and other pharmacologically active substances are liberated.

Confirmation that this mechanism may be of clinical importance has come from a study of patients with Gram-negative bacteraemia where it was shown that those with reduced levels of the

third complement component (C3) were more likely to become shocked than those with normal values (McCabe, 1973).

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SCOTTISH COMMITTEE FOR HOSPITAL MEDICAL SERVICES

Meetings were held in May, October and December 1973 and February 1974. Much of the time of the meetings was taken up with discussion on the National Health Service Reorganisation Scotland. These matters had not particular reference to anaesthesia.

Consultant Contract. In May 1973 it was announced that no agreement on this new contract would be made without further discussion within the profession and in October Dr. G.B.S. Roberts announced that he considered that at least three years further study would be required before any real decision could be made.

Distinction Awards. This matter was taken up with the Committee during 1973. As is known in January 1973 Scotland received one C award whereas England and Wales had a total of forty-two awards. In 1974 Scotland managed to receive one A, one B and six C awards. It is to be hoped that the holders of the A and B awards will ensure that more B and more C awards come to Scotland in future.

Competence to Practice. The S.C.H.M.S. felt that it should not be assumed by an Area Medical Committee in its Constitution that it has the powers to investigate any incident where a medical practitioner shows evidence of impairment where it might affect the right to practice.

General Practitioners in Hospital. The Crookes Report was received by the S.C.H.M.S. and was passed with comments to the Scottish Home and Health Department. The committee considered that the development of General Practitioner beds in hospital was in the interest of good general practice and that separate beds in G.P. wards would be ideal but that beds in specialised units would not appeal to all General Practitioners and accordingly no doctor should be made to feel obliged to proceed in such projects against his wishes or inclinations. Special attention should be paid to 4 points:

- (a) A G.P. should be responsible for his own emergencies.
- (b) An endeavour should be made to solve the problem of patients being unable to contact their own general practitioners.
- (c) Support should be given to general practitioners having hospital beds to look after their own patients and to continue treatment, and
- (d) For these doctors, adequately trained, there should be a place as a member of the hospital team.

It was felt that there was a place for trained G.P.'s giving anaesthetics in certain hospitals.

Acceptance of Gifts and Hospitality from Commerical Interests. If these were offered during working hours then the offers may have to be referred to the Area Board for approval. If the offer was made during the doctor's own time then the doctor should use his own judgement as to how to use his own time.

Appointment of Consultants. Regulations. The Changes in the Regulations were accepted. These were that the members of the Panel had full voting rights.

Hospital Medical Establishments. Whole-time Registrars and Senior House Officers. Approval must be sought from S.H.H.D. by Areas Boards from 1st April to 30th September for alterations in establishment.

Sanctions. The Secretary asked all regional committees to comment on a proposal that sanctions should be used to support improvements in pay, pensions and conditions of service generally.

James Crawford

CENTRAL COMMITTEE FOR HOSPITAL MEDICAL SERVICES

ANAESTHETIST SUB-COMMITTEE

In last year's Newsletter, I reported to members of the Society about the formation of this Sub-committee and its composition. I also gave some account of the early issues with which it was involved and later, at Aviemore, a further progress report was given.

In spite of the fact, that the more important issues of contract, remuneration and pay beds in the N.H.S. have more or less over-shadowed everything else, our Sub-committee, with the active help of its parent C.C.H.M.S., has continued to represent the interests of anaesthetists in the medico-political sphere.

Work of the Sub-committee

(i) *Domiciliary Visits*

Following on representations of the Sub-committee, our B.M.A. negotiators have secured the agreement of the D.H.S.S. that, when appropriate, an anaesthetist should be entitled to fees for both consultation and the administration of an anaesthetic in addition to a fee for the use of his own apparatus.

(ii) *Jaundice after repeated exposure to Halothane*

The B.M.J. in March 1974 published a letter from the Chairman and Vice-Chairman of the Sub-committee, deprecating the communication sent to all doctors and dentists from

the Committee on the Safety of Medicines. In addition, the C.M.O. of the D.H.S.S., the S.H.H.D. and the Welsh Office have been acquainted with our views that the letter from the Scowen Committee regarding a matter of scientific controversy might have serious and undesirable repercussions.

(iii) *Distinction Awards for Anaesthetists*

The Sub-committee have been disturbed that our Specialty, the largest of all, had lagged behind others in the allocation of Distinction Awards. Consequently, discussions have been initiated with Sir Hector MacLennan along with the Faculty and the Association of Anaesthetists to attempt to improve this situation.

The Scottish Committee for Hospital Medical Services, on which Dr. Davidson represents your interests, are also pursuing this issue as it affects anaesthetists in Scotland.

(iv) *Part-time Training and Consultant Posts*

This issue, and the fact that it mostly affected married women doctors, was considered in some detail and recommendations were sent to the Faculty and to the Joint Committee on Higher Training.

(v) *Creation of New Surgical Appointments without appropriate Anaesthetic Revision*

Having received representations on this subject, recommendations were sent to the Central Manpower Committee to the effect, that, before granting an application for an additional consultant post, evidence should be obtained that the appropriate facilities would be available and that there were sufficient consultant sessions (e.g. anaesthesia) to cover the new post.

(vi) *Dental Anaesthetic Fees*

Discussions on this difficult and thorny subject have continued since the Sub-committee was formed and progress is slow. However, a joint approach with the British Dental Association is being made to the D.H.S.S. in an attempt to negotiate a more satisfactory fee structure for this service and

also to include the possibility of such a fee being included in Category II.

(viii) *Other subjects under discussion*

These include (a) Consultant Workload for Anaesthetists under the existing contract and, (b) Retirement Age for Consultants in specialities with a high morbidity rate.

Members of the Scottish Society of Anaesthetists at present on the Sub-committee continue to be myself, representing the B.M.A. Central Council and Dr. George Smith representing junior interests of the Association of Anaesthetists. Either of us will be glad to be of assistance to members of the Society who may have any problems that might be brought before the Sub-committee.

Donald Beaton

REPORT OF ACTIVITIES OF THE SCOTTISH STANDING COMMITTEE OF THE FACULTY OF ANAESTHETISTS, 1973-1974

In the past year, the Scottish Standing Committee (S.S.C.) of the Faculty of Anaesthetists has had to deal with a number of issues of importance. One of these has been the setting up of a new body — the National Medical Consultative Committee (N.M.C.C.) — which has members from all the areas in Scotland, from the Universities, Colleges and Faculties as well as an equal number of general practitioners. The function of the N.M.C.C. is to provide professional advice to the Scottish Health Service Planning Council and it is a statutory obligation for the Council to receive it.

The representative of the S.S.C. on the National Committee will be Professor J.D. Robertson and the first full meeting will be in December, 1974. To advise the N.M.C.C., a number of Specialist sub-committees will be set up, including one for Anaesthetics.

The Scottish Home and Health Department asked the advice of the S.S.C. on H.M.S.O. "Report on an Enquiry into Maternal Deaths in Scotland 1965-1971". For some time past, a confidential enquiry has been held into the causes

of every maternal death. However, anaesthetic details are not necessarily required even in those cases where anaesthesia may have been a contributory factor and the assessment of the cause of death has been made solely by an obstetrician. The S.S.C. has recommended that an anaesthetic report form should be completed in all such cases and that five Regional Anaesthetic Assessors should be appointed to consider the reports. (There are five Obstetric Assessors for Scotland).

A document on "The N.H.S. and the Community in Scotland" was discussed and it was noted that there was a trend away from medical representation on governing bodies in favour of representatives appointed by Trade Unions and other bodies. It was felt that representations on this point were not likely to achieve much.

The question of General Practitioners in the Hospital Service poses some thorny problems. The Report of a Working Party (Tennent Report) was considered and the S.S.C. has expressed its concern about some aspects of it. In particular, it has made the point that it views with alarm the unfair financial competition provided by G.P.s

undertaking anaesthetic sessions. Training programmes are being jeopardised by the loss of registrars attracted by the higher pay they receive for anaesthetic sessions as G.P.s. If an anaesthetic service of high quality is to be maintained, it must be possible to keep trainees throughout their period of training. The S.S.C. accepted that in the outlying areas of the Highlands and Islands, it was not possible to have consultant anaesthetists to administer or supervise all anaesthetics and that, in these areas, anaesthetic services should be provided by G.P.s who hold the F.F.A.R.C.S.

The only nomination received for election to the S.S.C. was that of Dr. A.H.B. Masson who was declared elected and will continue to serve on the Committee for a further three years.

The S.S.C. has arranged with the Faculty that a further Course on Measurement will be held by Dr. Percy Cliffe and his colleagues. This popular event

will be held in Edinburgh in January 1975.

Among other matters to come before the Committee during the year were Membership of the National Panel, Scotland, General Professional Training and Higher Professional Training. In this latter connection, specific difficulties affecting Glasgow anaesthetists were brought to the attention of the Committee.

It seems likely that political devolution in Scotland, in some form or other, will be a reality within the next year or two. This will without doubt increase the disparity between the legislation and specific problems in Scotland as compared with the rest of the U.K. The wisdom of the Faculty in creating an elected national body in Scotland to deal with its own national affairs will become more and more apparent when a Scottish Assembly begins to function.

Registrar's Prize

The Society awards annually a prize of £50 for the best original paper submitted by an anaesthetist in Scotland, holding the grade of Senior Registrar or under. A second prize of £20 or a third of £10 may be awarded for other papers of particular merit at the discretion of the assessors. It is not necessary that the Registrar be a member of the Society.

The conditions attaching to the award are as follows:—

1. The paper must be original, i.e., it should not have been read previously at any meeting or published in any journal. The winning of the prize is in no way a bar to the subsequent publication of the paper.

2. It is desirable that papers submitted show evidence of personal work, but papers consisting of surveys of the literature are eligible for consideration. The Council of the Society wishes to stress that intending competitors should not be discouraged through fear of their efforts being judged elementary. It is fully realised that junior anaesthetists in some peripheral hospitals may not have opportunities to deal with special types of cases or to employ advanced anaesthetic techniques.

3. Papers for adjudication *must* reach the Secretary by the *end of February* at the latest.

4. The winner of the prize will be required to give a digest of the paper at the Annual General Meeting of the Society towards the end of April.

The Secretary places all entries in the hands of the Award Committee which consists of the President, Vice-President and Past President. The members of this Committee have expressed the desire to be able to adjudicate without knowing the name or hospital of the writer: it is requested therefore that the name, address, etc., of the entrant be submitted on a separate covering page. This will be retained by the Secretary, but otherwise the essay itself should give no indication as to its source: acknowledgment to colleagues, etc., should not be included.

The Registrars' Prize for 1974 was won by Dr. W.S. Nimmo of the Royal Infirmary, Edinburgh, for his paper "Narcotic Analgesics and Delayed Gastric Emptying during Labour". Additional awards were made to Dr. G.B. Drummond, The Royal Infirmary, Edinburgh, for a paper on "Post Operative Hypoxaemia and Oxygen Therapy" and to Dr. D.A. Logan of the Western Infirmary, Glasgow, for a paper entitled "Influence of Physiotherapy on Lung Function Tests".

Editorial

We need no reminder that we live in times of change. Health Service reorganisation is everywhere about us, although it probably affects us as practising anaesthetists to a relatively small extent. Further away on the European scene directives affecting the free movement of doctors within the Community are coming nearer, not it should be noted without dissension between the profession and the member governments regarding the remit and composition of the advisory committees. Two further matters dominate the the current scene.

The first is the proposed consultant contract. In Scotland where 80% of consultants (including University Staff) are full time it is not surprising that there is no strong feeling for the pay bed issue nor for the contract proposals put forward by the BMA and the HCSA and most Scottish Anaesthetists would probably settle for something like the Governments proposed contract. South of the border where 66% of consultants are part time and rely on private practice for a substantial part of their income it is understandable that the issue generates more heat. There have been suggestions in some quarters that Scottish consultants should go it alone, independently of our English colleagues, and make a separate settlement with the government. While this may have short term attractions it is a move which should be vigorously resisted. Having once made separate terms it would be only too easy for future governments to continue to deal separately with Scotland to our

continuing financial disadvantage. While we are right to expect recognition for and to press our point of view it would be detrimental to the professions cause if separate groups were to make individual deals with government.

The second major issue is the proposed College of Anaesthetists. Recently a feasibility report has been produced by the Association of Anaesthetists. There is a general feeling that this document underestimates the cost of the proposed venture, and as canny Scots we are rightly wary of expensive projects especially if financed with our money and located in London. However, it does appear that just as a child growing up leaves home and shoulders the responsibility and expense of running his own home so we as a specialty must eventually accept the responsibility and expense of housing ourselves. This in no way disregards the debt that we owe to the College of Surgeons as our foster mother nor suggests that such moves should be followed by a close and continuing association with the College, an association which hopefully could be the basis for wider associations with all the medical Colleges. There are strong indications that strong unions between the groups within medicine will become more important with coming developments at national and supra-national level. Such unions are likely to be strongest when they are formed by groups coming freely together for a common purpose rather than an uneasy and unwilling alliance.

News from the Regions

South-East Region

Much time and effort has been expended in coming to grips with the National Health Service re-organisation. It seems unlikely that the new system will be a great improvement and appears to be producing more divisions than co-ordination. It will certainly do nothing to help the deteriorating staffing situation.

There have been personnel changes at all levels. It is sad to have to record the death in March of Dr. Kate Burn-Murdoch whose triumph over her disabilities was admired by all who knew her. Her consultant post in Dunfermline has been filled by Dr. John Duncan. Prior to this the retiral of Dr. Weitzen left a vacancy which was filled by Dr. Eve Pitt.

It is interesting to note that Dr. Duncan was one of our earlier losses to general practice and we welcome the return of at least one prodigal son. However, we are still in negative balance in this respect as two registrars left the Royal Infirmary pool to take up trainee appointments in the city.

Dr. C.T. Barry retired from the Western General Hospital in November 1974 and has been replaced by Dr. N.H. Gordon. The continued existence of the latter's lectureship in Dental Anaesthetics at present hangs in the balance due to the dire financial straits of the University.

Dr. David Butchers returned from, and Dr. John Vonwiller returned to, Sydney after their year's exchange which we are sure was of benefit to all concerned. Dr. Ashley Macdonald returned from a year at McMaster University, Hamilton, Ontario, to his supernumerary senior registrar post and those who had been doing his supernumerary work in his absence heaved a sigh of relief!

Edinburgh was host to the Society's Scientific Meeting in June, reported elsewhere in this issue and a symposium on Local Anaesthesia was organised in conjunction with Astra Pharmaceuticals, the latter being well attended by visitors from this country and overseas. Attendance at the Edinburgh and East of Scotland Society's meetings have, in contrast, been poor and it is hoped that there will be a resurgence of interest this session.

On the social side the Christmas party took the form of a dinner dance at the Harp Hotel which was enjoyed by all who attended. The Golf Outing

was held at Longniddry and was won by Dr. David Bennie. Last year's winner Dr. Mason, failed to appear to defend the Silver Tankard — foul play was suspected!

North-East Region

The continuing oil boom in the North-East of Scotland is having an effect on many aspects of life. The volume of traffic is increasing with a regrettable rise in the number of giant road transporters, necessitating an earlier departure from home in the morning, but so far not causing a significant increase in the incidence of road traffic accidents. Air travel is easier now in that there are more daily flights to London — if you can get a seat. But the facet which affects all newcomers to the area is the ferocious rise in property prices, and this has had a deleterious effect throughout the hospital service on recruitment of junior personnel from outside the region, with Anaesthesia, as always, among the first to feel the draught.

There have been changes of staff. Dr. Rosalind Milne retired in May, and is now happily wondering how she ever found time to give anaesthetics. Her place has been taken by Dr. Ian Smith, who decided he did want to stay in this country after all. Dr. Donnie Ross has moved up to Senior Registrar, and our new Registrars are Drs. Anne Donald, Peter Taylor, and Dimitrios Michaloudis. We have had a larger than usual influx of new recruits, and are hopeful that at least some of them will decide to stay in the specialty full time.

The social side of life has not been neglected. Our Christmas Dinner Dance was a great success in spite of failure of calor gas supplies to the hotel kitchen just as the chef entered the final throes of preparation (or did the extra drinking time help us along?).

Congratulations are due to Dr. W.I. Emslie who married in August, and to Drs. Karl Buchmann and Henry Mason who each had a daughter. They are also due to Dr. Mike Tunstall for achievement in a different field — the organisation in September of a highly successful meeting of the Obstetric Anaesthetists Association.

Northern Region

Snow in October, but no changes in the permanent staff this year, or sadly, the hospital buildings at Raigmore, and Phase II recedes even further into the future. However, long overdue repairs to the theatres seem to be a little nearer. Ancillary staffing continues to be a major problem, and great goodwill all round keeps the service going. A much needed Theatre Users Committee is in process of being set up by Dr. Booth, and one anticipates that practical solutions to the problems will be worked out under his guidance.

The Regional Post-Graduate Medical Centre, with its excellent library and enthusiastic Director, is well established both for local, tutorials and clinical meetings, and as venue for visiting groups and societies.

Dr. John Machin left in August for we hope temporary training in General Practice. His meticulous care of patients and courtesy to all are much missed, and the post of Registrar is still unfilled. Does no-one want a spell in the Highlands with plenty of experience and beautiful surrounding countryside?

Eastern Region

Since the last Newsletter from the Tayside Area, the Department of Anaesthesia in Dundee has moved from its former old home in D.R.I. and settled down in luxurious new quarters in Ninewells Hospital and Medical School. The sensation is akin to having moved from a single-roomed flat to a luxurious penthouse. Facilities now include ample research laboratory space with the latest in lung function, blood gas analysis and cardiac function equipment, departmental library, seminar room, common room and consultants' and senior registrars' offices. Anaesthetists can now be recognised by their pallor and mole-like appearance, resulting from the absence of windows in the theatre complex and anaesthetic department.

The Intensive Therapy Area is functioning busily under the enthusiastic guidance of Drs. Iain Gray and David Dalrymple. It soon became clear that there would be no possibility of duplicating its services in Dundee Royal Infirmary, the main accident centre. This leads to periodic exercises in transferring patients on artificial ventilation by police escort, the three miles between the two

hospitals being covered in as many minutes. The definitive unit in Ninewells is still to be built, but a four-bedded ward is coping very adequately at present.

The obstetric epidural service, which Drs. Lawson and Milne continue to develop, is highly appreciated by both patients and obstetricians. It is a welcome improvement that the Midwifery Department is now in one unit in Ninewells, thus making it easier to provide a high level of anaesthetic cover. Epidural analgesia is used extensively also for surgery and junior staff have every opportunity to become competent in its use.

An active teaching and research programme is in progress. The results in the Fellowship Examinations improve from year to year, and a considerable number of research projects is in hand by both senior and junior staff.

It is with great regret that, since the last issue, we have to report the death of Dr. Harvey Franks. His presence is sorely missed, not only for the meticulousness and care which made him a master of the art of anaesthesia, but also for his humour and the generosity and kindness with which he treated his colleagues.

Dr. Baruch returned in August from a sabbatical year at Ede in Holland. Dr. A. Houghton, Senior Registrar, leaves in January to take up a research post for a year with Dr. Bromage in Montreal.

Finally, we welcome Dr. David Dalrymple and Dr. Melville Milne as new consultants.

West Region

Events in the West this year have followed the pattern of previous years. Materially, new hospitals continue to add to the Glasgow skyline — their upward progress matched only by their spiralling costs. Phase I of the new Western Infirmary nears completion and should be operational by April, 1975.

The advent of the new Greater Glasgow Area Health Board has made little difference so far, in the day-to-day running of the various anaesthetic departments, but the last act of the Western Regional Hospital Board was more memorable. This was the laying of the foundation stone of the new Glasgow Royal Infirmary, a colourful ceremony, which was preceded by a service in Glasgow Cathedral. So far there is little above ground but several gigantic cranes, perhaps the

East End soil is not so productive as that of the West End where new hospitals sprout like mushrooms. Work at the new hospitals at Coatbridge and Rutherglen continues and is keeping more or less to schedule.

We were saddened by the sudden death of Dr. Eric Mathie when on holiday abroad. While at Stobhill, Dr. Mathie had earned the respect of all fortunate enough to have known him. It is also with regret that we record the deaths of Dr. Ellen B. Cowan, former anaesthetist at Rottenrow Maternity Hospital for many years and Dr. Gladys Dewar, one time anaesthetist to the Samaritan Hospital and latterly a prominent member of Glasgow Corporation.

Several new consultant appointments were made throughout the year, including Dr. R.K.B. Young and Dr. R. McMahon to Ayrshire, Dr. Stuart Macdonald to Stobhill, Dr. Joyce Newman to Greenock, Dr. John Thorburn to the Western Infirmary and Queen Mother's Hospital and Dr. Douglas Arthur to the Royal Infirmary and Royal

Hospital for Sick Children. Although Dr. Thorburn and Dr. Arthur have both returned from spells in Canada, the transatlantic trend remains principally in the opposite direction as we continue to supply the far flung outposts of our former empire. Dr. Len Dougan left for Australia during the summer. There is also no visible easing off in the rush for general practice, with or without the F.F.A.R.C.S.

Dr. Donald Campbell is now an examiner in the Final F.F.A.R.C.S. in London.

This year's escape from the polluted atmospheres of theatre was made to Williamwood Golf Club, one of the few remaining green spaces not earmarked for future hospital development. In ideal weather conditions and amid glorious scenery, the holder, Bill Bargh, failed to hold off a strong challenge from the large and enthusiastic field. Following a magnificent round, Dr. Ken Grigor won the Galley Trophy, kindly presented by Mrs Galley. Although unsuccessful this year, negotiations continue to have this classic tournament televised for the World Golf series.

GLASGOW AND WEST OF SCOTLAND
SOCIETY OF ANAESTHETISTS

Curriculum 1974-75

1974

Friday, 4th October

Golf Outing - Williamwood Golf Club, 2 p.m.

Saturday, 26th October

(Lister Surgical Lecture Theatre, Edinburgh
Royal Infirmary: 5.00 p.m.)

Combined meeting with Edinburgh and East of
Scotland Society of Anaesthetists.

Dr. L. F. Prescott: "Recent Advances in the
Treatment of Overdoses".

A Sherry Reception and Dinner will follow the
meeting.

Tuesday, 3rd December

Members' Night - Division of Anaesthesia,
Western Infirmary, Glasgow.

1975

Wednesday, 22nd January

Mr. P. E. Ghadiali, Consultant Clinical Physi-
ologist, Brompton Hospital: "Some Cardio-
vascular and Pulmonary Aspects of Shock".

Thursday, 13th February

Dr. P. J. F. Baskett, Consultant Anaesthetist,
Frenchay Hospital, Bristol: "Immediate Care".

Wednesday, 12th March

Dr. W. Auld - Presidential Address.

Tuesday, 15th April

Annual General Meeting.

Unless otherwise stated, meetings will be held at the
Royal College of Physicians and Surgeons of Glasgow,
242 St. Vincent Street, at 8.15 p.m.

Tea will be available at 7.45 p.m.

Notice of each meeting will be sent to members.

EDINBURGH AND EAST OF SCOTLAND
SOCIETY OF ANAESTHETISTS

Syllabus 1974-75

1974

Saturday, 26th October

Combined Meeting with Glasgow and West of
Scotland Society of Anaesthetists in Edinburgh
Royal Infirmary at 5 p.m.

"Recent Advances in the Treatment of Over-
doses" Dr. L. F. Prescott, University Depart-
ment of Therapeutics, Royal Infirmary,
Edinburgh.

A Sherry Reception and Dinner will follow the
meeting.

Tuesday, 5th November

"Recent Advances in Intensive Care" Dr. A.
Muir, Dr. R. Burtles and Dr. I. Davidson.

Tuesday, 3rd December

"The Manpower Situation in Anaesthetics"
Professor J. Parkhouse, Manchester University.

1975

Tuesday, 7th January

"Theatre Pollution" Dr. G. Parbrook, Royal
Infirmary, Glasgow.

Tuesday, 18th February

Members' Night.

Tuesday 4th March

"The Effects of Drugs on the Pulmonary
Circulation" Professor M. K. Skyes, Royal
Postgraduate Medical School, London.

Friday, 21st March

Annual Dinner.

Tuesday, 22nd April

Annual General Meeting.

Meeting will be held in the Royal College of Surgeons,
Nicholson Street, Edinburgh, on the second Tuesday of
each month, unless specified otherwise. Telephone
031-556 6207. Tea at 7.45 p.m. for 8 p.m.

NORTH-EAST OF SCOTLAND SOCIETY OF ANAESTHETISTS

Syllabus 1974–75

1975

1974

Thursday, 17th October – Stracathro
Presidential Address. Dr. Margaret Soutar

Thursday, 28th November – Dundee
“The Differentiation of the Normoblast”.
Professor J. D. Robertson.

Thursday, 10th April – Stracathro
Registrars' Papers.

Thursday, 8th May – Aberdeen
“Changing Concepts in Paediatric Anaesthesia”
Dr. W. J. Glover.

Meetings are held at 8 p.m. in Aberdeen Royal Infirmary,
Ninewells Hospital, Dundee, or Stracathro Hospital,
Brechin, unless notified otherwise.