

NEWS LETTER



THE SCOTTISH SOCIETY
OF ANAESTHETISTS

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SCOTTISH SOCIETY OF ANAESTHETISTS

COUNCIL FOR 1979-80

Office Bearers

<i>President</i>	Dr. L.D. DAVIDSON, Aberdeen
<i>Past-President</i>	Dr. A.H.B. MASSON, Edinburgh
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<i>Editor of the Newsletter</i>	Dr. J.A.W. WILD SMITH, Dept. of Anaesthesia, Edinburgh Royal Infirmary.

Regional Representatives

		Retires
Aberdeen	Dr. J.McG. IMRAY	1981
Dundee	Dr. I. GRAY	1980
Edinburgh	Dr. C.M. HOWIE Dr. J. WILSON	1981 1982
Glasgow	Dr. A.A. SPENCE Dr. A.G. MacDONALD	1980 1982
Inverness and the North	Dr. J.H. SPENCELEY	1980

PROGRAMME FOR 1980

REGISTRAR'S PRIZE: Entries to be submitted to the Secretary by 29th February 1980.

ANNUAL GENERAL MEETING: Post House Hotel, Aviemore, 25th/27th April 1980.

REGISTRARS' MEETING: Dundee, June 1980.

SCIENTIFIC MEETING AND GILLIES LECTURE: Aberdeen, November 1980.

President's Newsletter



The activities of the Society this session have been over shadowed by the death of Dr. Ian Gillies, son of one of the most illustrious members of our Society. Our sympathies go out to his wife and family.

Once again the Society has been faced with a new President and a new set of semi-permanent officials all at once. To my knowledge we have not perpetrated any terrible gaucheries but my feeling is that one member of the "trinity" should be replaced each year to ensure continuity.

The feelings of impending doom which swept over me when I assumed Office at the A.G.M. were quickly dispelled by the expressions of goodwill which I received later in the evening. For me the highlight at Aviemore was the children singing "In the Navy" at the dance on Saturday evening. The lowest point was their obvious disappointment when they were told that they should all be in bed after the interval at 11 pm!

The Society's Registrars' Meeting this year was presented by the Staff of the Anaesthetic and the E.N.T. (Hypnosis Section!) Departments of the Victoria Infirmary, Glasgow. We were

entertained to an excellent programme. A great deal of thought had gone into the choice of topics. The careful preparation of the papers was obvious and the delivery most impressive.

I attended the meeting of the Association of Anaesthetists of Great Britain and Ireland in September. My wife and I were invited to represent the Scottish Society of Anaesthetists by being guests at the top table at the Dinner on the final evening. This was a gesture of goodwill to thank our Society for its contribution towards the meeting. I would like to congratulate the members of the Glasgow and West of Scotland Societies of Anaesthetists for the work they did in providing a memorable meeting. It was a most impressive occasion in the beautiful setting of Stirling University.

As usual the final event of the year was the Scientific Meeting, this time in Edinburgh. Dr. Richard Burtles obviously gave serious thought to the choice of speakers, all of whom spoke on paediatric subjects. The second Gillies Memorial Lecture was given by Dr. G. Jackson Rees, an ideal speaker to close a meeting with a paediatric theme.

Editorial

My first duty as Editor of the Newsletter must be to record my thanks to my predecessor, David Steel, for the orderly state of the editorial files that he has passed onto me and to express the hope that the Newsletter will continue to achieve the high standard that he has set. Every new editor likes to make his mark on his product and I hope that the membership approve of the crest recently designed for the award to the Gillies lecturer appearing on the cover. Modern printing methods mean that such an attractive design can be used at minimal cost.

The major problem facing the Society at present is the establishment of its financial affairs on a more formal footing — a thistle that has remained ungrasped for perhaps too long. At the last AGM an indication was given that 1980 would see a motion for an increase in the subscription. When considering this motion it will be as well to bear in mind that when the Society was founded in 1914 the subscription was 52½p and the average income of a General Practitioner £395. As a percentage of earnings today even £10 would be less than our founders contributed. An alternative source of income would be the inclusion of advertising material in the Newsletter. This would

alter its character somewhat (as well as increasing editorial workload!?) and although agreement to such a move was given at the AGM in 1979 this issue contains no advertisements at the request of the Treasurer who wishes our relationship with the Inland Revenue to be regularised before other sources of income are generated.

Money continues to be of concern to the profession as a whole. A new Government committed to reducing public expenditure must affect the Health Service. It is time perhaps to look at efficiency and levels of staffing, especially of groups not directly connected with patient care. Related to this are the modifications to the existing Consultant contract recently announced. The Government, by allowing full-time consultants to do private work, may be telling us to earn our own salary increases. Since the majority of Consultants in Scotland are whole-time and there are fewer opportunities for private practice (particularly for Anaesthetists?) it has been suggested that for the first time Scottish Consultants should negotiate separately from those in the south. Such a major deviation from previous practice has major implications — should it be considered?

Registrar's Prize

The Society annually awards a prize of £60 for the best original paper submitted by an anaesthetist in Scotland, holding the grade of Senior Registrar or under. A second prize of £30 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: acknowledgement to colleagues, etc., should not be included.

The prize for 1979 was won by Dr. David Brown of Edinburgh Royal Infirmary for his paper "The effect of baricity on spinal anaesthesia with tetracaine". Second equal were Drs. David Scott of

ANNUAL GENERAL MEETING - AVIEMORE

27th – 29th April 1979

The Annual General Meeting at the Post House, Aviemore for the eighth year, was supported enthusiastically by a large section of the membership and their families. The Post House and Aviemore combine to provide an excellent venue, particularly for those with young families for whom many hotels would be prohibitively expensive.

The academic side of the meeting followed its traditional pattern and high standard, with the new President's account of the history of the Society being of particular interest at a time when

our role is becoming more formal. The papers presented at the meeting follow below.

Prizes for the sporting activities were again donated by our friends in the trade who as usual gave the meeting their wholehearted support. The Golf competitions were won by Ian Gray and Mrs Joan Bargh and the Squash by Duncan Ferguson. Prizes for fishing went to the Donalds Campbell and Robertson.

We return to Aviemore from 25th to 27th April 1980 and your Council looks forward to welcoming as many members as possible for another highly successful meeting.

PRESIDENTIAL ADDRESS

Dr. LAWSON D. DAVIDSON

THE ORIGIN AND HISTORY OF THE SCOTTISH SOCIETY OF ANAESTHETISTS

When I was considering topics for this occasion, it occurred to me that although I knew that our Society was old, I knew very little about its origin and history. It seemed possible that the members of the Society might share my interest in this subject. I am not aware of such a review having been made before but even if it has, it is something which can bear repetition. Furthermore, 1979, being the sixty-fifth anniversary of the Foundation of the Society, seemed an appropriate time to look into our past.

The formation of the Society is described thus in the Minute Book and I now quote:

"Foundation On February, 20th 1914, a dinner was held at the Balmoral Hotel, Edinburgh, of gentlemen practising the speciality of Anaesthetics in Scotland. The following were present:

Dr. D.C.A. McAllum of Edinburgh in the Chair, also the following, from Edinburgh, Dr. Torrance Thomson, Dr. J.H. Gibb, Dr. M.H. Jones, Dr. J.S. Ross: from Glasgow, Dr. Boyd, Dr. Lamb, Dr. Napier, Dr. Fairlie: from Aberdeen, Dr. Johnston: from Dundee, Dr. Mills. Apologies for absence

were sent by Dr. Home Henderson of Glasgow and from Dr. Ogston and Dr. Robertson of Aberdeen."

After dinner a business meeting was held and it was resolved unanimously that a Society of Anaesthetists be formed for Scotland. The rules which were formulated and adopted are largely the rules which govern the Society to-day. From them, I would mention three.

First Two ordinary meetings are to be held every year upon the third Saturday of April and October at a time and a place to be appointed by the Executive. (To-day is, of course, the fourth Saturday in April, but this rule is the reason we are here to-day).

Second Definite time was to be allocated at every Scientific meeting for the bringing forward of short notes of any case of unusual nature. This rule seems to have fallen into abeyance.

Third The annual subscription was to be half a guinea which was no mean sum in 1914. The penalty for non-payment of subscription, in 1914, was five shillings, now it is loss of membership.

The following were appointed as first office-bearers of the Society until April, 1915.

President: Dr. D.C.A. McAllum; Vice President: Dr. Boyd; Secretary-Treasurer: Dr. J.S. Ross, F.R.C.S.E.

Members of the Executive: Edinburgh, Dr. Torrance Thomson; Glasgow, Dr. Lamb; Aberdeen, Dr. Johnston; Dundee, Dr. Mills.

The eleven gentlemen already named as present all joined the Society. The minute of this meeting was signed by the President, Dr. McAllum.

The first regular meeting of the Society was held in the Guild Hall, Edinburgh, on April 18th, 1914. The eleven original members were present. Three others, Dr. Home Henderson of Glasgow and Drs. Ogston and Robertson of Aberdeen were elected original members. The Treasurer declared a satisfactory credit balance of £3. 9. 10 and the Secretary read a letter from the Editor of the Journal of the American Medical Association conveying his good wishes to the Society. He was instructed to send a suitable reply.

Other business consisted of minor alterations and additions to the Rules followed by the President's address upon "False Anaesthesia". Discussion upon "The open and closed methods of administering Ether" followed. Extracts of this were sent to the press and are in the records of the Society.

After the meeting, the members dined together. The minutes of this meeting were signed by Dr. James Paton Boyd as President and not by Dr. McAllum as one might have expected and it is likely that they were signed a long time after they were written. One has to look at the accounts book of the Society for the explanation. On March 1st, 1915 there is the ominous entry under expenditure;

Wreath for late President £1. 5s.

Careful scrutiny of the accounts at this time fails to reveal that Dr. McAllum ever actually became a paid up member of the Society!

The 1914-18 war intervened and there was a break in the proceedings of the Society until November, 29th, 1919 when the second regular meeting took place in the Hall of the Faculty of Physicians and Surgeons, Glasgow. Seven of the original members were present. The President, Dr. Boyd referred to the lamented death of the first President of the Society and was informed by the Secretary that a letter had been sent by the Society to Mrs. McAllum at the time and a wreath was sent in the name of the Society.

The President then requested Dr. Johnston to refer to the death of another member, Dr. James Robertson of Aberdeen who fell in France in March, 1917 while in command of the second/first Highland Field Ambulance. The meeting expressed general regret but it was considered that at this date, no further action was possible.

Inserted into the minute of this meeting, almost as a Post-script, is this rather odd item:

I quote, "Dr. Torrance Thomson referred to the arrangement made with the Editor of an American Medical Paper through Dr. McMechan whereby its quarterly supplement upon anaesthesia was to be regarded as the official organ for the publication of the proceedings of the Society. Dr. Thomson reported that this arrangement was not working satisfactorily; a report which he had made to the paper upon the death of Dr. McAllum having been altered by the Editor without any reference to him as the author of the memorial notice. The Secretary was instructed by the meeting to write and terminate the official connection of the Society with the paper in question."

Two interpretations of this event come to mind; the first is that the Editor referred to in the Minutes of the first regular meeting was not the Editor of the American Medical Association. The second, is that if he was, the American Medical Association was not, in 1919, the formidable organisation it is to-day.

The Society then entered a relatively calm period of its existence. In 1922 at a meeting in Aberdeen, the first surgeon to attend a Society meeting was introduced. He was Mr. George Herbert Colt, not an Aberdonian, though he worked there. He is mainly remembered for his introduction of Colt's tension needle and also of 'wiring' in the treatment of aortic aneurysms. Mr. Colt did contribute to the discussion but no record was made of his remarks.

In 1922, Dr. John Anderson read a paper entitled, "The Signs of Anaesthesia reported as occurring prior to Death under Anaesthesia" based upon his investigations into anaesthetic fatalities made on behalf of the Procurator Fiscal of the Glasgow area. This was strangely prophetic of one of the Society's major successes which was to occur almost forty years later and to which I shall refer namely, a major alteration in the rules for reporting deaths in association with anaesthesia.

1923 brought the first of several reports all of which indicate dissatisfaction with the Status and the remuneration of the Special (not specialist) Anaesthetist. In short, Scottish anaesthetists were charging fees much less than their colleagues in London and provincial centres in England. The minimum in England was three guineas — in Scotland, one guinea — for major operations! I feel I have to quote the following, "the fee of one guinea for major operations is sometimes reduced to suit the pocket of poorer patients, but the Surgeons appear to forget to indicate those patients who *could* pay a much more substantial fee without hardship and in most cases *would* be very ready to do so. The net result of this is a very definite restriction of the total earning capacity of the Anaesthetist."

Paragraph 6 of this report states, "The Executive think it only fair to report that the best results appear to be achieved by those who do *not* ask the Home or the Surgeons to collect their fees."

1924 was a very significant year for the Society because, for the first time, the eligibility of women members of the profession to be members of the Society was raised.

Dr. J.H. Gibb moved and Dr. Torrance Thomson seconded that Rule A4 shall be held to include women equally with men! A slip of the pen no doubt. Dr. Frew was the Society's first male chauvinist, he moved the direct negative. On the vote, the motion was carried but only by seven to four. At this meeting the annual subscription was reduced from half a guinea to five shillings!

At the Annual meeting in Dundee in 1925, proposed by Dr. Fairlie and seconded by Dr. Napier, Dr. Effie J. Swann, 37 Queen Square, Glasgow was unanimously elected to membership of the Society. Effie appears to be, without any doubt, our first lady member.

The meeting of 1926 was a particularly auspicious one. Guests present on that occasion included a party of seven visiting anaesthetists from North America. In this party, was Dr. E.I. McKesson, Toledo, Ohio whose anaesthetic machines must have given many millions of dental anaesthetics. Dr. McKesson took part in the discussion following the Presidential address. Also present was Dr., later Professor Wesley Bourne of McGill University, Montreal, who delivered a lantern lecture on the subject of "The Effects of Ether Impurities".

The visitors and their ladies were suitably entertained in the evening at a dinner in the Central Hotel, Glasgow.

In 1928, once more, we find the Society mourning the death of a president while still in office. On this occasion, it was Dr. W. Barras who assumed office at the annual meeting on 12th May 1928. He died on 29th July of the same year as the result of a motor car accident which must have been a very rare occurrence in those days.

Dr. W.B. Primrose demonstrated his new portable apparatus (ANAESTHETOR M7) for administering gaseous anaesthetics on the closed principle in Dundee on 13th October, 1934. This was the first closed-circuit machine to be used in this country and marks one of the first real advances in anaesthesia noted in the minutes. The following year, Dr. Primrose read his Presidential paper on the subject of "Closed Anaesthesia. Some remarks on Cyclopropane".

Dr. John Johnston (Aberdeen) who had previously been President in the year 1921–22 when his address was "Some Pre-anaesthetic Intoxications" spoke of "Evipan Sodium" during his second term of office, 1936–37; another significant step forward.

At the annual meeting in 1937, among the matters discussed, it was proposed that a Presidential Robe or Badge of Office be purchased. It was decided that the executive committee should make inquiry into the matter and report to the next meeting.

At the meeting in Dundee on 8th October, 1938, were the following items.

- (3) Report of Executive Committee on the purchase of a Presidential Badge of Office. Designs of medallions with chains were submitted. The Executive recommended the purchase of one of these at a cost of £30.00. The Meeting approved unanimously.
- (4) *International Congress of Anaesthetists in Paris in 1940*

The President read a letter from the French Society of Anaesthesia and Analgesia stating that an International Congress was being planned for some time during the first fortnight of July, 1940, and asked if the Scottish Society of Anaesthetists would co-operate with them.

Dr. A Mills was deputed to get in touch with the French Society.

(5) *Meeting with Anaesthetists from the United States and Canada*

Arising from item 4, the President read a letter from Dr. F.H. McMechan, Secretary General, Associated Anaesthetists of the United States and Canada. Excerpt from letter:— "We are wondering if you could let us know at what time and in what place the Scottish Society of Anaesthetists will meet in 1940, and if the date is close enough to the Paris Congress, if Anaesthetists from the United States and Canada would be welcomed as visitors to the Scottish Anaesthetists Meeting".

It was decided to hold a special meeting of the Scottish Society of Anaesthetists in Glasgow on a date in July, 1940 to suit the arrangements of the Associated Anaesthetists of the United States and Canada. The Secretary was instructed to communicate with Dr. McMechan.

On 28th September, 1939 a short notice was issued cancelling all meetings of the Society for the duration of the War. The Second World War interrupted the Society's proceedings for a time rather greater than the duration of the hostilities. Here it might be appropriate to make a summation: the membership was now about 40; the accounts showed a credit balance of £27. 18. 3½ and there were very definite signs of progress in the art and science of our Speciality.

The next meeting of the Society took place at Dunblane Hydro on Saturday, 29th and Sunday, 30th April, 1950. This marked the third and present phase in our history.

Dr. Keir Fisher, a former president, took the Chair for the first part of the meeting and explained the feeling and belief of the existing members of the Society that its activities should be resumed and that a Scottish Society had a distinctive contribution to make to anaesthesia. Dr. Fisher then installed Dr. John Gillies, President Elect since 1939, as President of the Society for the year 1950–51.

On this occasion no fewer than seventy-two new members were admitted to the Society. I think this reflects the passage of eleven years but it also reflects the increase in interest in anaesthesia which occurred necessarily during war time, it reflects the introduction of the National Health Service and the establishment of anaesthesia as a major speciality and it reflects the introduction of the greatest innovation since anaesthesia itself — curare.

The title of Dr. Gillies' Presidential Address was "Anaesthetics as a Speciality — Past, Present and Future". Among other things, he emphasised that this resuscitated Scottish Society would in no sense be a rival one to the rapidly developing local societies in Glasgow and Edinburgh. It was intended that these latter must remain the main platforms for the discussion of scientific problems whilst the annual Meeting of the Scottish Society would be, perhaps, predominantly a social occasion. He was anxious that the academic standard of those practising anaesthesia should be high and that their interests should not be confined to the narrow technical aspects of anaesthesia administration. He thought it was important that those in responsible positions in the Anaesthetic service should encourage the supersession of the technician by the broadly educated physician-anaesthetist with high qualifications whose fitness to take his place in the consultant ranks would be unquestionable.

I do not apologise for quoting at such length from Dr. Gillies' address because I wonder if some sort of destiny delayed his becoming President for eleven years, eleven very important years in anaesthesia and thus allowed his sentiments to have a very profound impact which it would have been difficult to envisage in 1939.

Three other important proposals were made at this fruitful meeting. Dr. A.I. McKenzie raised the question of a prize for the best paper submitted from among the younger members of the Society. This is our Registrar's prize — or should I say prizes nowadays. Dr. Gillies proposed that a guest speaker, not necessarily an anaesthetist, be invited to future meetings.

Finally, Dr. Leslie Morrison proposed that one of the activities of the Society be to arrange for parties of anaesthetists other than those of Consultant status to visit other centres to attend organised demonstrations. This was the origin of one of the Society's most successful undertakings, the Registrars' Meetings, the first of which took place in Glasgow on Friday, 6 October, 1950.

In 1951, the annual subscription was raised to 15/- to finance the Registrars' Prize and the expense of the guests. In this year an effort was made to have facilities provided for Scottish candidates for the Diploma in Anaesthesia to sit the examination in Scotland. This request was refused (as it was again in 1955). Dr. J.G. Robson of Glasgow was the winner of the first Registrar's Prize.

Also in 1951, Dr. Goldblat of the World Federation of Societies of Anaesthesiologists wrote to say that as only one organisation per Country shall be admitted to the Federation, this Society was not eligible for membership. It may give you some satisfaction to know, that in ignorance of the above facts, Dr. John Barker, of the Institute of Neurological Science and I gate-crashed the magnificent reception given in Kyoto, Japan by the Federation on the occasion of the 5th World Congress of Anaesthesiologists in 1972 and we did it to represent this Society.

As a result of a suggestion from the Society, the Central Consultants and Specialists Committee (Scotland) agreed to the formation of a sub-committee in Anaesthetics in 1952. Once again the Society took the unusual step in 1956 of reducing the subscription from 15/- to 10/-. This had a rather disastrous effect on the Society's income and we were back again at 15/- the following year. It was also proposed at this time that a programme of entertainment for wives of members and a golf tournament be instituted. Both are well established favourites in our annual meeting.

Dr. Lawrie of Perth, in his Presidential address of 1957, raised the question of the unsatisfactory circumstances attending reporting deaths in association with anaesthesia and suggested that the matter might be looked into. I remember well, being interviewed by the Police Surgeon in the presence of two police officers regarding a death on the table which was a pure surgical misadventure, while the Surgeon concerned was not even required to give a statement.

A sub-committee consisting of Dr. Lawrie, Dr. R.N. Sinclair and Dr. Callum Shaw was set up to hold exploratory discussions and if need be to approach the Lord Advocates Secretary. Co-opted later were Dr. John Gillies, Dr. William Shearer and Dr. A.W. Raffan. This committee put a tremendous amount of time and effort into its tasks for it is not easy dealing with the Crown Office. Finally, it was able to report in 1961 that it had achieved success in so far as instructions to Procurators Fiscal and to anaesthetists concerning deaths requiring to be reported had been considerably clarified and a new form had been issued which now required the Surgeon to give details of the operation and sign the report along with the anaesthetist.

This was a praiseworthy achievement. Regretably, once more, since 1977 considerable unrest among anaesthetists about reporting deaths associated with anaesthesia has been expressed, particularly in the South of Scotland. This matter is still being considered.

The first of the very successful Scientific Meetings was held in Edinburgh in February, 1960. Because of extra expense involved the subscription was raised to one pound.

From 1950 to 1958 Annual General Meetings were held at the Dunblane Hydro, but after nearly a decade, members felt that the Society should change. Annual General Meetings were held at Gleneagles in 1959 and 1961, St. Andrews in 1960 and 1963, and Dunblane in 1962. 1964 was the Golden Jubilee of the Society so we returned to its birthplace, Edinburgh. 1965 was St. Andrews, and 1966 meant a foray to Inverness followed by Pitlochry for three years and Elie for one year. Since 1972, we have had our meetings here at the Post House, Aviemore.

It was obviously impossible for me to compress 65 years of history into 45 minutes, so I have concentrated on the origin and growth of the Society and the widening of its activities. However, there are one or two further items which have interested me particularly.

At one time it was suggested that the Society should form a Travelling Club. This idea did not progress because national societies took over. However, the Society had two visits to the I.C.I.'s Research Establishment at Alderly Edge. This made me appreciate what the Drug Industry puts into research in the way of finance, initiative and energy.

We had three visits to Messrs. May & Baker's factory complex at Dagenham. Here we saw the extent of their productions. Most particularly it was brought home to me and am sure to other visitors, the quality control required by the Drug Industry. We never question the nature, purity and amount of a drug which we draw up into a syringe from an ampoule. This type of visit showed me why I should have such faith. I might express a wish that our younger members be given a chance to repeat these experiences.

There was a very successful visit to Scandinavia in 1968, and I was able to take part in the memorable visit to Poland in 1970. The difficulties of communicating with persons behind the Iron Curtain taxed the energies of even the indefatigable Donald Campbell but I can assure you that was quite a trip.

I wish to recall the beginning of the Society's Newsletter in 1960, something that was very important to Dr. Callum Shaw. It has to be recorded that it did not meet with immediate success but it has now established itself as a very important part of the Society's activities. I will not spare Dr. Shaw's blushes. It was his dear wish that the membership of the Society should reach 200 before he demitted office. He did not achieve this – but he was only 13 short.

1964 was the occasion of a most sparkling programme, the Golden Jubilee of the Society. With Professor J.D. Robertson as President, Dr. A.H.B. Masson as Secretary and Dr. A.C. Milne as Treasurer, how could it be otherwise?

Something else which is very important to me is the Society's official tie. In 1967 Dr. J.S. Stirling suggested that a suitable tie for members would be appropriate. He was backed by Dr. W.R. McRae (Edinburgh) and Dr. Janet Brash (Glasgow) agreed to help. The result of their deliberation,

they may be pleased to hear, is a neck-tie which has been the subject of more praise than I have ever heard for a tie before. A small point perhaps, but there are several Society ties in Japan and even more in Poland given in friendly exchange.

I wish to place on record, my own thanks and the thanks of the Society to a succession of devoted Secretaries. It is not only the recording of the Society's activities that is important but also the implementation of the Society's wishes. This Society has been more than fortunate with the dedication and ability of its Secretaries.

Finally, I should like to say that I feel that I may be here in front of you to-day because of a misinterpretation of the Rules of the Society. In 1952 the Council decided that the Vice-President (and therefore the President) should be a prominent Scottish Anaesthetist. I have some doubt if the prominence to which they referred was the prominence which I have achieved!!

GUEST LECTURE

Professor E.A. COOPER

SEEING AND PERCEIVING SOME THOUGHTS ON NUMBERS IN CLINICAL CARE

The use of words does not guarantee satisfactory communication. At times the obstruction is due to the language barrier, when a word may be selected or pronounced in such a way as not to be interpreted, nor even identified by the listener. At other times an excellent and clearly definable word may carry quite different connotations, depending on the background context. The word 'island' has a specific and clear meaning yet the context of its use colours the implications. The island upon which the castaway has been marooned for several years may appear to him a God-forsaken strand, yet to a mariner swimming in the Timor Sea with sharks snapping at his heels, that same land may be the paradigm of his most ardent prayer.

Similar arguments apply to single measurements of a solitary variable. For instance, respiratory frequency is a concept clearly definable as the number of respiratory cycles which take place in a minute. But how much do we infer from such a solitary piece of information as "a respiratory frequency of 44 breaths per minute". The medical audience believes that the

medical speaker is referring to a patient breathing at 44 breaths per minute. This is indeed likely but it is by no means certain. The measurement applies with equal validity to the activity of a machine maintaining ventilation in an apnoeic patient at 44 breaths per minute. Indeed the measurement serves little purpose without an understanding of the clinical background and of the circumstances under which it was made. Given this knowledge the value must then be seen against previously amassed experience of the normal behaviour and also of the variation from the normal which might reasonably be expected. But even then, that single measurement does not necessarily tell us very much. The value, 44 breaths per minute, certainly does not indicate whether or not the patient's respiratory function was adequately maintained. Other channels of information are required before such an assessment can be made.

No single measurement can ever overrule, let alone take the place of, a conscientious clinical assessment. Single channel information of infinite accuracy is vastly inferior to the multi-channel information available from clinical endeavour. A

finger on a pulse may give a less precise numerical estimate of the pulse rate but it will give, in addition, a reasonably reliable estimate of the regularity of rhythm, a useful indication as to the systolic blood pressure, a comment on the degree of vaso-constriction, on the temperature of the skin, and on the presence or absence of sweating. Also, unless the clinician adopts the unusual behaviour of closing his eyes when feeling the pulse, some information will inevitably be available about the patient's haemoglobin level, arterial saturation, restlessness, air hunger, etc. Inevitably, single measurements are at a great disadvantage in comparison with educated fingers.

The single value must be seen against the appropriate clinical background and must also be backed up by other measurements. But even given a whole barrage of synchronous estimations these only constitute a snap-shot in time. There is as yet no comment as to whether the patient's condition is stable, improving or deteriorating. The next problem therefore concerns how we may best derive information from a series of values. If one only has two measurements of variables it is easy enough to know whether they have gone up or down or stayed the same. On the other hand if there are many measurements, as in the recording of pulse, blood pressure, respiratory frequency etc, the possible interpretation of them may be very difficult and especially so if they have not been measured at reliable, regular intervals. They need to be recorded along with the time at which they were measured and this can be done most easily and to the greatest benefit of the interpreter if they are plotted on a clear scale with time along the x-axis. In this way a gap in a series of measurements is clearly shown and one has the best chance of deciding whether the condition is stable or unstable and is or is not showing any trend of a change with time.

But this evaluation, even when the measurements are plotted against time, may be very difficult or virtually impossible. The day will probably come when intensive therapy units will have the facility to record points on a keyboard and to have an immediate reply from the computer as to whether or not there has been a statistically significant change over the relevant period of time. Indeed this facility is virtually available now for those who are prepared to use a small programmable calculator which would be much cheaper than many items of equipment currently available in such specialised units.

The consideration of trends inevitably raises the question as to how much importance one can attach to a single solitary value which is far out of line with other points or with expectation. Does that point mean that the patient has suddenly got very much worse or very much better or does it merely represent an error of the doctor or the nurse or the calculator? The immediate response must be to seek confirmation, to measure the ectopic value again, and this is usually simple if the measurement is merely of such a variable as pulse rate, blood pressure etc. However, if a repeat value is not so readily accessible one may look for evidence of change in some other measurement or some aspect of the clinical picture. For instance if the unexpected variation has been a gross change in pulse rate it is likely to have been associated with an alteration in blood pressure. If all else has remained stable the ectopic value can probably be attributed to error. But it is dangerous to be too cavalier in dismissing a measurement which at the time does not appear to "fit".

The importance of any single unexpected value depends very much on the mass of evidence against which it appears unexpected. One ectopic point amongst five hundred others which are apparently consistent can reasonably be ignored, but one ectopic point in five may well be very important. It is sometimes helpful when trying to see an unexpected value in perspective, to consider what would have been one's reaction to an equal movement in the opposite direction. For instance, if the measurements appear to show a fall of blood pressure of 30 mm Hg would one's assessment of the case have been very much affected had the apparent fall been an apparent *rise* of 30 mm Hg?

Nevertheless there is always the danger that one will omit, forget, or actively disregard a particular value merely because one cannot understand its implications. It is important to remember that rare things do occur rarely and that almost anything can happen just once in a lifetime. Consider very briefly the occurrence of surnames, especially the first letter of surnames. In the medical directory, and in the Newcastle upon Tyne telephone directory the number of names whose initial letter is in the first half of the alphabet, is rather greater than that of names whose initial letter is in the second part, in the ratio of approximately 3:2. The editorial boards of Anaesthesia and of The British Journal of Anaesthesia fit this distribution quite well. On the other hand the editorial board of Anaesthesiology

derives all its eight members from the first half of the alphabet. This may be a little surprising but in statistical terms is not very unlikely for such a small group of people. On the other hand a recent editorial board of a much respected British specialist journal derived seventeen of its eighteen members from the first part of the alphabet! Again, the name Sterling is by no means common. Looking in the medical register and in the Newcastle telephone directory it appears to occur approximately once in seven thousand names. Yet this year's intake to one of the minor M.Sc. courses in Newcastle University consisted of six people of whom three had the surname Sterling. They were all girls, from different parts of the British Isles, and were not in any way related to each other.

So far the problem has been to differentiate the out-of-line point which represents a genuine and important difference from the point which is out of line because of error or chance. In many ways, an even greater problem is that of the point whose true meaning is hidden by the elimination or concealment of other points. How many clinical trials have begun because five patients have apparently done very well on a drug? How many have been reported at 80 patients because the eighty-first died? The medical profession shares with journalists, financiers, and indeed with the rest of mankind, the ability to select and present the data it likes and to ignore or exclude contrary evidence. And if we are capable of doing these things to others how much also are our colleagues capable of doing them to us? Which anaesthetist has not been sold a haematemesis by a physician or a surgeon on the glib information that the blood pressure is 100 mm Hg and the haemoglobin is 10 G% but to the exclusion of the additional information that three hours previously the blood pressure had been 170 and the haemoglobin had been 14. Caveat emptor. Do not buy anything in clinical practice on a time-selected statistic.

Finally there is one more fundamental point about the derivation of clinically important information from measurements. So far, measurements have been considered as very largely independent of each other. Such variables as pulse rate and blood pressure whilst being aspects of one physiological system are essentially independent. The degree of causality between pulse rate and blood pressure is tenuous and impossible to quantify. On the other hand, many measurements can be made in conjunction with others such that a change in one would be expected to be reflected in a change in the other. In many instances the degree of that reflection may give a very useful comment on the relevant physiological processes. A simple example would be in the measurement both of tidal volume and of the pressure applied by the ventilator in providing that tidal volume. A greater pressure would be expected to result in a greater tidal volume. If the difference in the latter were less than expected the implication would be that there was a deterioration in the mechanical behaviour of the lung. With this clear message, that the resistance of the lung to inflation had increased, it would be a comparatively simple task with a stethoscope to check for the onset of, say, pulmonary collapse or bronchospasm.

It is appropriate to end with a brief summary of the major points.

1. We will perceive more which is of importance to the patient if we see, not only the numerical value, but also the clinical context in which it was made and its position in relation to other measurements in time.
2. We must beware of points which are out of line with others or with our expectations but they must not be rejected solely because they do not "fit".
3. We probably err and make life rather more difficult for ourselves in seeking to amass a barrage of independent measurements rather than in looking more carefully at inter-relationships and their implications.

EFFECT OF BARICITY ON INTRADURAL ANAESTHESIA WITH TETRACAINE

Solutions for subarachnoid spinal anaesthesia may be classified as hyperbaric, isobaric or hypobaric depending on whether they are heavier than, of equal weight to, or lighter than cerebrospinal fluid. However, the spinal anaesthetic blocks produced in patients by solutions of different specific gravity have never been compared in a controlled trial. This investigation was designed to compare the clinical effects of spinal anaesthesia with hyperbaric, isobaric and hypobaric tetracaine.

Patients who were to have spinal anaesthesia for elective gynaecological or general surgery to the lower trunk or legs were investigated.

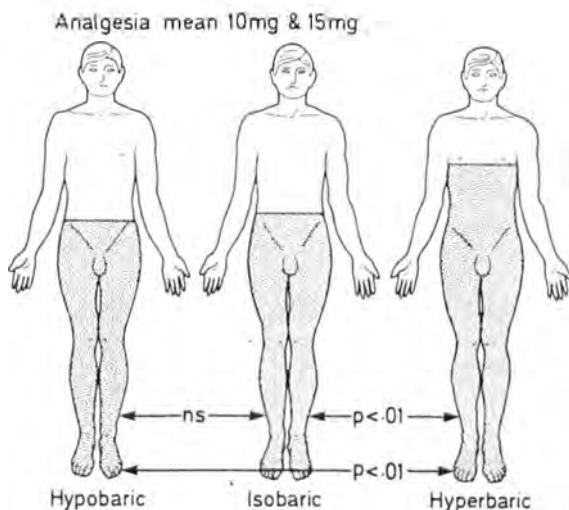
A 1 per cent solution of tetracaine (SG 1.0060–1.0074) was mixed with an equal volume of water, 0.9% sodium chloride solution or 10% dextrose solution. This produced 0.5% solutions of tetracaine that were hypobaric (SG 1.0037), isobaric (SG 1.0069) or hyperbaric (SG 1.0215). The solutions were drawn from autoclaved ampoules and mixed in a syringe immediately before injection.

Fifteen men and fifteen women were each given a 10 mg dose of tetracaine and fifteen men and fifteen women were each given 15 mg. Within each group of fifteen patients five received hypobaric solution, five received isobaric solution and five received hyperbaric solution. The administration of the solutions was randomised.

After premedication, a lumbar puncture was made with either a 22 gauge or 25 gauge needle using a standard midline approach with the patient in the lateral recumbent position on a horizontal operating table. Once a free flow of CSF was obtained the tetracaine solution was injected over 15 seconds without barbotage. Immediately after the injection the patients were turned to lie supine with their legs extended and the operating table was kept horizontal. Assessments of the spinal block were made during the first 20 minutes after injection.

Arterial blood pressure and pulse rate were recorded before the patient was positioned for lumbar puncture and at five minute intervals after anaesthetic injection.

At five minute intervals after intradural injection, but before the start of the operation,



measurements were made of the cephalad level of analgesia and anaesthesia and motor weakness in the legs was assessed. Analgesia was defined as the inability to appreciate pinprick and anaesthesia was defined as the inability to appreciate touch. Similar measurements were made at hourly intervals after the operation. The mean values of the data from the different groups were calculated. The significance of the differences was determined using a t-test.

The mean interval until analgesia was detectable in the thoracic dermatomes after hypobaric tetracaine was significantly longer than after hyperbaric tetracaine.

The mean maximum height of analgesia produced by each specific gravity of tetracaine is shown in Figure 1. The mean, maximum spread of analgesia after hyperbaric tetracaine was significantly greater compared to both the spread after isobaric tetracaine and the spread after hypobaric tetracaine. The spread of analgesia after 15 mg of tetracaine, however, was not significantly different from the spread after 10 mg and the spread in male patients was not significantly different from the spread in females despite the differences between the latter two groups.

Nineteen out of 20 of the patients who received heavy solutions had complete motor blocks, whereas the isobaric solutions only produced complete motor blocks in 16 out of 20 patients and the hypobaric solutions produced the least motor block, only 11 out of 20 patients being completely unable to move their legs.

The mean time interval until no further analgesia was detectable anywhere on the patients legs was only 4¼ hours after heavy solutions which was significantly shorter than 5½ hours after isobaric solutions and 6 hours after hypobaric solutions. Ten mg of tetracaine also had a significantly shorter duration of action, providing detectable analgesia for only 5 hours compared to 5¾ hours after 15 mg.

Although the pre-anaesthetic arterial pressures of the groups had not differed significantly the mean arterial pressure of the patients 10 minutes after hyperbaric tetracaine (97/56 mm Hg) was significantly lower than after both isobaric tetracaine (116/70 mm Hg) and hypobaric tetracaine (125/74 mm Hg). There was, however, no significant difference in arterial pressures of the group receiving 10 mg compared with the group receiving 15 mg.

The study showed that the spread of analgesia after hyperbaric solutions of tetracaine was 5 dermatomes higher than after isobaric and hypobaric solutions and, consequently that the decreases in arterial pressure of the group receiving hyperbaric solution were significantly greater than those in the groups receiving either of the other solutions. It also showed that the duration of action of the hyperbaric solutions was about one hour shorter than the duration of the other two solutions. Presumably the hyperbaric solutions were able to spread under the influence of gravity into the hollow of the thoracic curve while isobaric

and hypobaric solutions remained nearer to the site of injection.

It is of interest that, while the hyperbaric solutions produced more widespread blocks, their mean duration was shorter than with the other two solutions. This could be due to the greater spread of the solutions allowing more rapid uptake into the blood from the anaesthetised nervous tissue. The isobaric and hypobaric solutions spread much less extensively and hence greater concentrations of tetracaine may have been present at the site of injection and thus increased the mean duration of action.

The finding that there was no difference between the mean height of analgesia after 10 mg of tetracaine and the mean height after 15 mg was surprising. Most anaesthetists believe that increasing the dose of an intradural spinal anaesthetic solution increases the extent of the block it produces. However, there was no evidence from this study that the height of analgesia was dose related. The mean duration of analgesia after 15 mg of tetracaine was 45 minutes longer than after 10 mg of tetracaine.

Spinal anaesthesia with isobaric anaesthetic solutions is not popular. However, the data from this study indicate they may have desirable clinical features. The mean height of analgesia was the tenth thoracic dermatome which provides a useful block for operations on the legs, perineum or groin. Furthermore, they reduce the chance of anaesthetic spread to the upper thoracic region and the consequent fall in blood pressure that is undesirable in some patients. The duration of action after isobaric solutions is also longer than after hyperbaric solutions.

Increasing the duration of anaesthetic action by using larger doses of anaesthetic without the risk of excessively high blocks may also be possible but further work is required to determine the dose range over which this observation is true.

Registrar's Meeting

VICTORIA INFIRMARY, GLASGOW — 15th June, 1979

About eighty junior anaesthetists from all over Scotland assembled at the Victoria Infirmary for the Registrars' Meeting organised by Dr. Brian Stuart. In the morning session there was a choice between three groups of demonstrations. The first group went to Mearns Kirk Hospital to hear about the Pulsatile Extra-Corporeal Pump, Blood Filtration and Swan-Ganz Catheterisation. The second went to the University Anatomy Department to see anatomical specimens relevant to a wide variety of local anaesthetic blocks and for a 'spot' quiz on X-rays. The remainder stayed at the Victoria for demonstrations of Resuscitation, the Pain Clinic and Computerised Fluid Balance.

The meeting regrouped for an excellent buffet lunch prior to the afternoon session chaired by Dr. Norman Lees. Six papers were presented. The first on 'Experience with Etomidate' by Dr. Barbara Millar outlined this drug's properties, with particular reference to its induction characteristics. 0.3 mg/kg was considered to be the minimum induction dose, and pain on injection has been reduced by using propylene glycol as the solvent. The cardiostable characteristics were underlined. The next presentation by Dr. Glasser continued the theme with a film on total intravenous anaesthesia using an infusion containing 250 mg Etomidate and 700 µg fentanyl in 125 ml. The advantage of rapid awakening following surgery was demonstrated. The third paper by Dr. Burke discussed the Shock Lung Syndrome from a

pathological viewpoint. A definition of this elusive problem was given, and its primary, secondary and tertiary nature outlined. The contribution to aetiology of sepsis, endotoxins and micro-emboli was suggested and early artificial ventilation with positive end-expiratory pressure advocated.

After tea Dr. Donald Moir described the experience of the Queen Mother's Hospital of caesarian section under epidural anaesthesia. Advantages of the method in terms of reduced bleeding, better Apgar scores and the avoidance of Mendelson's syndrome were emphasised, as were the complications of vomiting, hypotension and shivering. Dr. Moir advocated a two-stage injection technique and inhalation of a 20% N₂O/80% O₂ mixture. Mr. G. Gray then discussed a team approach to Parenteral Nutrition, and showed a film of subclavian catheterisation with skin tunnelling which he advocated. The importance of correct assessment of patients' requirements, with subsequent formulation of appropriate solutions was emphasised.

The final presentation was by Dr. Alan Robertson. This was a fascinating, entertaining and enthusiastic account of the basis of hypnosis — or 'altered state of awareness' which is the preferred terminology. The principles of attention, repetition and reinforcement were explained and a convincing demonstration of induced anaesthesia and age regression was given. This was a unique finale to an excellent meeting which was closed by the President's thanks to the organisers.

Scientific Meeting

WESTERN GENERAL HOSPITAL, EDINBURGH — 6th November, 1979

THE USE OF EPIDURAL ANALGESIA IN PAEDIATRIC SURGERY

Dr. D.S. ARTHUR

Like, though less frequently than, his counterpart in adult anaesthesia the paediatric anaesthetist will meet patients who would be better managed with a local or regional, rather than a general, anaesthetic. Intercurrent disease may suggest such a form of anaesthesia, and problems of atmospheric pollution and repeat procedures exist as much, if not more, in a children's hospital than in any other. It is appropriate therefore, that the paediatric anaesthetist should be able to provide the most suitable form of analgesia or anaesthesia for his patients, taking into consideration the surgery involved and the safety and comfort of both patient and theatre staff. Conduction anaesthesia must have a place in paediatrics.¹

The commonest method of conduction anaesthesia used in children is sacral epidural injection via the sacral hiatus. This approach to the epidural space is technically simple in children when compared with adults, but because the dura may extend to the third or fourth sacral segments, the needle should not be advanced once the sacro-coccygeal membrane has been punctured.

The epidural space in the adult widens from approximately 2–5 mm in the mid-thoracic area to 6 mm in the lumbar area. It can be assumed that this space will be narrower in children, but using the thoracic approach the distance traversed by the needle will be increased as the epidural space is approached at an acute angle. Further, the rounded bevel of a Tuohy type needle will tend to indent the dura in a much less hazardous fashion than the sharp point would when approaching in the more nearly vertical direction used in lumbar epidural injection.

The volume of local anaesthetic required for lumbar epidural has been extensively studied² suggesting a linear increase in the requirement from the age of ten to the age of eighteen, then a fall with increasing age. At the extremes of age correlations are not linear. Conversely caudal anaesthesia has been shown to have a very good dose-age relationship in children. We have calculated our doses in children from the formula

$(\text{age} + 2) \text{ ml. per segment to be blocked.}$ ^{3,4} Below one $\frac{10}{10}$ year of age we have used a dosage scale of 0.5 ml per kilogram to block the sacral segments for perineal procedures and 1 ml per kilogram for the lumbar segments for operations for inguinal herniae and on the lower limbs.⁵ In the neonate larger doses have been used because of the relatively large sacral epidural space and more rapid loss of local anaesthetic from this space. The volume for perineal procedures being between 2 and 4 ml.

Although the volumes required are worked out the safe dose ranges of actual drug are not as yet well established in children. It has been stated that children tolerate local anaesthetic drugs well⁶ and a recent study showed that blood levels following sacral epidurals do not even approach those associated with side effects.⁷ Our agent of choice is 0.25% bupivacaine.

Four neonates undergoing surgery for imperforate anus have had caudal anaesthesia as the sole anaesthetic. The operating conditions have proved entirely satisfactory in three cases, but one case was intubated and ventilated with Nitrous Oxide, Oxygen and relaxant because of persistent movement. One infant aged six months weighing 5.25 kg who had four months previously undergone unsuccessful surgery for biliary atresia, required further surgery for large bilateral hydroceles communicating with ascites in the abdomen. Caudal anaesthesia was induced using 7 ml of 0.25% bupivacaine. This was supplemented with 50% nitrous oxide in oxygen to produce sleep and prevent further movement. Operating conditions were entirely satisfactory and a rapid recovery of consciousness ensured.

We have used caudal anaesthesia in nearly 200 cases for post-operative analgesia. The operations have been mainly for circumcision and inguinal hernia with a few lower limb procedures such as skin grafting to burns. The only complications experienced so far have been one case of retention of urine, and one case where the dura was punctured accidentally because the needle was advanced on penetrating the sacro-coccygeal membrane. This was detected prior to the injection of any anaesthetic agent.

There is now a distinct preference for caudal analgesia for circumcision and inguinal herniae, especially from the nursing staff who care for these children post-operatively. A single shot technique is used and in over 80% of cases no further analgesia is required during the hospital stay.

Six patients who had undergone surgery for correction of coarctation of the aorta aged from four to fourteen years were given analgesia by continuous thoracic epidural post-operatively. It was considered that in addition to the recognised benefit in reducing respiratory complications the reported side effect of hypotension experienced with this form of analgesia would be an advantage, as hypertension persists following repair of coarctation. This hypertension is considered to be due in part to a hyperdynamic circulation and the cardio-sympathetic nerves would almost certainly be blocked in the upper thoracic region, thus reducing the blood pressure.

In no case was a reduction in blood pressure greater than 20 mm Hg noted, even though relatively large doses of bupivacaine were used. For example 4 ml 0.5% bupivacaine three hourly, in the youngest child aged 4, weighing only 17 kg, had no effect on the blood pressure. The oldest child of 14 received 16 ml of 0.5% bupivacaine during the last four hours of a 24 hour course of epidural analgesia without effect on blood pressure. Sodium Nitroprusside was required in both. Supplements of Papavaretum between 2 and 4 mg intravenously were used in four cases during the night, to provide sedation and prolong the

action of the epidural anaesthesia. This technique has now been used in a further four cases who had undergone thoracotomy, in two of whom it was bilateral. In one case analgesia was poor and the procedure was discontinued. In no case was hypotension a problem.

In conclusion, it would be a great pity if children should be denied "one of the best and most satisfactory methods of post-operative analgesia". The benefit of epidural analgesia as a safe form of analgesia during and after surgery should not be restricted to an adult population.

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THE ACCURATE MEASUREMENT OF BLOOD LOSS IN PAEDIATRIC SURGERY

Dr. R.B. LEWIS

One way to estimate blood-loss during surgery is to wash in water the swabs and drapes on which blood has collected and to measure the blood-volume lost by photocolourimetry.¹ This is more accurate than the surgeon's or anaesthetist's estimate of blood-loss and is easier than weighing the swabs or the patient before and after surgery or red-cell tagging.²

Earlier approaches with the photocolourimeter technique made use of domestic washing-machines, and although accurate results were possible,³ there were disadvantages, including noise and vibration from the machine. Also, circulation of a blood/water mixture through a system of concealed pipes, filters, pumps, and photocolourimeter made proper cleaning impossible. Such a machine was easily choked with debris, making servicing difficult and accuracy doubtful. The new instrument⁴ described here overcomes these limitations, making blood-loss monitoring continuous, more convenient, hygienic, and reliable.

The washing-out system of the blood-loss monitor comprises a tank, an electrically-driven air pump, and an air disperser. The disperser is a flat perforated vessel set in the tank and connected to the pump by a disposable tube. When the pump is operating, air bubbling through the water creates enough turbulence to wash the blood efficiently from materials placed in the tank. No detergent is needed. Since a small air pump produces enough turbulence, the washing action is quiet and free of vibration. The internal parts of the air disperser are not in contact with the water/blood mixture because air is constantly being blown out. This eliminates clogging by debris.

A photocolourimeter probe is immersed in the tank. Intensity-modulated light is split into two beams. One beam passes across the fluid to a light-sensitive detector, and the other passes directly to a reference detector. This system produced accurate and stable readings. The continuous digital display is bright enough to be read from any point in the average operating theatre. The display is in millilitres of blood.

The tank is filled with 35 l of water. A three-digit thumb-wheel-edge switch is set to a figure (between 8.0 and 20.0) to correspond with the patient's haemoglobin in g/dl. If the haemoglobin level is unknown the

photocolourimeter can obtain this from a 1 ml blood-sample.

The air pump is then activated by depressing a push button, and blood-loss is continuously displaced as the swabs and other materials are fed to the tank. Wash-out time varies from one to five minutes for swabs which have been drying out for two hours. Aspirated fluids can be added to determine their blood-volume content.

In a check of the wash-out from swabs and surgical drapes with measured volumes of blood, the maximum error recorded was +2.8% by volume, and the mean error was +1.1%. Once the final blood-loss has been obtained the tank is emptied by a roller pump. This pump has a peristaltic action, so that only its disposable tube is in contact with the mixture.

When the tank is empty the lightweight basket containing the swabs and other materials is removed. The basket is designed so that its contents can be discarded without being touched by the operator. The basket is replaced in the tank, which is refilled with clean water and pumped out again. Drying with a soft cloth prepares the instrument for its next use. A high standard of hygiene is easily maintained, since access is good and no dismantling is necessary for visual checking and cleanliness.

The prototype instrument was designed for determining paediatric blood loss with an accurate range of 0-600 mls. In order to widen the possible clinical application of the machine, the photocolourimeter probe has been redesigned to give a read out range of 0-5 litres. In this way it is anticipated that the instrument will be used to measure blood loss in neurosurgery, obstetrics, urology and orthopaedics. This in turn has increased commercial interest in the Blood Loss Monitor and several commercial manufacturers are already interested.

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The concept of 'balanced' anaesthesia which forms the basis of much modern anaesthetic practice, still involves the risk of 'awareness' as Gray himself pointed out.¹ We have been reminded of this again earlier this year.² Efforts to eliminate this risk include the use of inhalational or intravenous anaesthetic agents, all of which introduce their own problems. Apart from the specific difficulties associated with each individual inhalational agent there is the more general hazard of theatre atmosphere pollution³ and these have encouraged the use of intravenous drugs. Amongst these the wide choice available suggests that the answer has yet to be found. Droperidol is one about which there remains some doubt. There are reports of mental disturbances in adults of an unacceptable nature, and difficulties in communication during the recovery period. These disorders appear where no other premedication has been used.

This survey was undertaken to examine again whether droperidol is a satisfactory adjuvant for use as part of a relaxant technique in children, instead of a volatile agent. Studies were made of children on routine lists where the only departure from normal practice was more frequent and prolonged visits to patients in the post-operative period.

All patients were premedicated with trimeprazine and atropine orally. Intubation followed induction with thiopentone and curare, after which droperidol was given in a dosage of 0.2 mgm per kilo for maintenance of anaesthesia in conjunction with nitrous oxide and oxygen. Reversal of curarization at the end of the procedure was effected by using prostigmine together with atropine. Narcotics were prescribed for administration as required, according to established practice as when any other anaesthetic technique was employed. Each child was visited as soon as possible after the operation and questioned to establish whether they showed any evidence of distress. They were also seen at greater length on the following day and questioned further in order to determine whether there was any evidence of an unpleasant experience, for example bad dreams or discomfort afterwards.

Twenty children, most of whom had either a femoral osteotomy or orchidopexy, have so far been studied after receiving droperidol. All were readily rousable post-operatively and with one exception none admitted to any pain when

questioned. The exception was an eleven year old boy who said "his tummy was sore", but then promptly dozed off, only to wake a little later to ask for a drink. Some narcotics were administered where the staff considered this necessary, as in other post-operative cases. The favourable spontaneous comments made by nursing staff were a particular feature in these cases; some even enquired whether a different anaesthetic technique had been used, and no reference was made to any difficulty being experienced in communicating with the children. Similar favourable comments were passed by some patients, particularly where children had previously been anaesthetised using some other agent.

An apparent overall reduction in post-operative narcotic requirements in these patients compared with patients anaesthetised by other techniques, has been examined largely by a retrospective study of the records. There is some evidence that droperidol reduces the overall post-operative narcotic requirements, and also prolongs the average time to the administration of the first dose. These observations may be explained in terms of the more prolonged effect of droperidol as compared with other commonly used agents such as halothane. It was also observed that the operative blood-loss during femoral osteotomy was reduced in cases where droperidol was used compared with similar cases anaesthetised using either relaxant alone or in conjunction with halothane. It is unlikely that this is explicable purely in terms of hypotension as this would not have been expected as a particular feature of this technique.

It is concluded from this study, which is continuing, that droperidol is a satisfactory adjuvant for use in a relaxant anaesthetic technique in children who have been adequately premedicated. It does not appear to produce the distressing mental disturbances which have been reported in adults, and would appear to have some advantages over other commonly used techniques, including a reduction in blood-loss during surgery and post-operative narcotic requirements.

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LIVER FUNCTION TESTS AND REPEATED HALOTHANE ANAESTHESIA IN CHILDREN

Dr. R. BURTLES

There has been much work on the association between halothane and post-operative jaundice, but this is largely confined to adults. Paediatric anaesthetists seem to have an advantage over their colleagues in that it appears quite acceptable to repeat anaesthesia with halothane as frequently as is required. There are a few fatal cases reported among children, but in all cases there were other causes to which the death could be ascribed. There are several papers describing children to whom 42, 46, 54, 101 and even 111 anaesthetics were administered, apparently without effect. The best score I can manage is 31 — in a child with osteomyelitis involving the whole of the femoral shaft. Some of these authors report doing an occasional group of liver function tests, but none were abnormal and none of these children developed any illness suggestive of hepatitis.

Three years ago, a girl aged 5 years with a burnt hand developed jaundice after 3 halothane anaesthetics. She made a complete recovery and has been anaesthetised uneventfully (avoiding halothane) on two occasions since. This case is to be reported elsewhere.

It was decided to carry out liver function tests on a prospective basis on children who were to have several surgical procedures. Standard tests were used with in addition a new technique to measure plasma bile acids, which it was thought might be a more sensitive indicator than existing tests, at least for cholestasis. Blood was taken at the time of each anaesthetic and where possible after the final one.

Tests were carried out on 52 children, but not all had all tests performed. The following summarises the results to date:—

Albumen: All the initial (control) results fell within the laboratory's normal range. At a second or later anaesthetic there were two cases which

were slightly higher than normal and two just below.

Bilirubin: Again all the control levels were within normal limits except one which was 1 $\mu\text{mol/l}$ above. He was a 12 year old who had an Ombredanne repair for hypospadias. He had to be anaesthetised 40 hours later so that he could be catheterised for urinary retention. His bilirubin had risen to 22 $\mu\text{mol/l}$. His other tests were normal on both occasions.

Gamma glutamyl transpeptidase: All samples lay within normal levels.

Alanine amino transferase: All 50 controls fell within the normal range. Of those cases followed for more than one anaesthetic several showed a rise but only one rose above the normal levels. The results were similar for *Aspartate amino transferase*.

The *bile acid* levels are affected by feeding but this was not a problem as all our patients were fasted. The normal levels are very low in adults and children, but in neonates the level can be very high, up to 30 $\mu\text{mol/l}$. The suggested upper limit of 3 $\mu\text{mol/l}$ generally accords our spread of control results. Results found at subsequent anaesthetics showed rather more variation, a few rising above normal. Two very high levels came from a 14 month old cleft palate baby who underwent herniorrhaphy 8 days later. A subsequent examination showed the levels to have fallen considerably. This must be regarded as abnormal.

Although it does seem that repeated halothane anaesthetics (even at short intervals) may affect liver function tests, the effects are erratic and inconsistent. No one test seems much better than another. Unfortunately, only one case has required four anaesthetics in this group, so the follow up has not been very prolonged. We propose to continue.

A LOOK AT PRE-OPERATIVE STARVATION IN CHILDREN

CHARLES W. ALLISON

There is a growing awareness that young children may not withstand pre-operative fasting as well as adults. Hypoglycaemia is the chief concern as it reduces cerebral tolerance to hypoxaemia and hypotension.

The physiology of short-term starvation is reviewed with particular reference to the central role of the amino acid alanine in blood glucose homeostasis. The Glucose-Alanine Cycle appears to be an essential mechanism whereby normoglycaemia can be maintained during fasting. Muscle preferentially utilises glucose when supply is normal, and releases alanine when glucose availability is limited. There is a brisk uptake of alanine by the liver as a substrate for gluconeogenesis during fasting.

92 children aged between 8 months and 8 years were fasted overnight for surgery and their blood glucose and amino acid profiles derived from samples of venous blood taken immediately following induction of anaesthesia.

The mean blood glucose level was 4.4 ± 1.0 mmol/l but 11% had levels below 3.3 mmol/l which was accepted as the defined lower level of normoglycaemia. Of the 30 children aged under 4 years, 23% had blood glucose levels below 3.3 mmol/l and 10% below 2.8 mmol/l. Only one child in the entire study had a level less than

2.2 mmol/l. These figures agree with other reports in the literature¹ but there was no evidence of the alarmingly high incidence (28%) of severe hypoglycaemia (less than 2.2 mmol/l) reported by Thomas.² There was no demonstrable correlation of blood glucose with age but those children whose weight was low for age tended to become hypoglycaemic.

The minimal sugar content of VALLERGAN FORTE syrup (approx. 0.2 g/kg body wt.) was shown to have no influence on blood glucose levels pre-operatively.

Plasma alanine levels ranged from 0.09–0.35 mmol/l with a mean of 0.17 mmol/l. These are significantly lower than normal controls (range 0.25–0.5 mmol/l is considered normal during a period of adequate nutrition). This reduction in alanine is probably indicative of its hepatic uptake for gluconeogenesis. No correlation was demonstrated between blood glucose and alanine levels.

References:

1. Graham, T.F.M. (1979). Pre-operative Starvation and Plasma Glucose Concentrations in Children undergoing outpatient anaesthesia. *Br. J. Anaesth.* 51 161.
2. Thomas, D.K.M. (1979). Hypoglycaemia in Children before Operation: Its Incidence and Prevention. *Br. J. Anaesth.* 46 66.

THE EFFECT OF KETAMINE AND OTHER ANAESTHETIC AGENTS AND PROCEDURES ON THE INTRACRANIAL PRESSURE OF CHILDREN

R.A. MINNS

Ketamine causes a "dissociation" of sensory inputs at different levels of the central nervous system and is a particularly useful drug in paediatric practice both for general anaesthesia and for sedation for minor procedures such as burns dressings, bone marrow aspiration, muscle biopsies, lumbar punctures and neuroradiological procedures. Various reports in the literature indicate that ketamine induces an increase in ventricular pressure due to an increase in cerebral blood flow and regional cerebral metabolism. This is not universally accepted however and one report has suggested that ketamine induced a fall in intracranial pressure.

Dramatic visual loss is often noticed post-operatively in hydrocephalic children and is assumed to be due to relative upward coning at the time of operation. Raised intracranial pressure at induction and during general anaesthesia could also contribute to this visual loss. The aim of this study was to investigate the effects of some commonly used anaesthetic drugs on intracranial pressure in children.

Twenty patients (11 males, 9 females; age range 1 day to 12½ years) were given ketamine 2–4 mg/kg (3 intramuscular and the remaining intravenous) after atropine 0.02 mg/kg. All the patients had neurological disorders such as

hydrocephalus due to spina bifida or intracranial haemorrhage. Seven patients had their ventricular pressure monitored throughout the anaesthetic in which ketamine was used for induction. After the ketamine, and where the clinical situation allowed it, a delay of 4–5 minutes ensued before applying a mask and continuing the anaesthetic. The operative procedures were all shunt revisions.

The remaining 13 patients were given ketamine for other reasons e.g. pneumoventriculogram. Ten of the cases also underwent monitoring of their ventricular pressure during sleep in an attempt to evaluate the possible usefulness of ketamine as a test of intracranial compliance in children with raised intracranial pressure. Ventricular pressures were measured by means of a miniature strain gauge pressure transducer attached to a Huber needle inserted into a Rickham ventriculostomy reservoir.

Ketamine induced an increase in ventricular pressure level in all cases (mean increase 37.8 ± 25.9 mm Hg $p < 0.001$). In the 15 cases with labile CSF dynamics the mean increase was 47 ± 23.2 mm Hg ($p < 0.001$) and even the five with normal pressure and no abnormality of CSF or cerebrovascular pathways had a small increase (mean 10.2 ± 5.3 mm Hg $p < 0.01$). The latency of the response varied, with a mean time of 47 seconds after i.v. ketamine. The earliest ventricular pressure response was 10 seconds, and the mean time to reach a maximum ventricular pressure response was 5 minutes. In uninterrupted cases the ventricular pressure remained elevated for 7 minutes. The route of administration of ketamine made only a slight difference to the maximum ventricular pressure response.

Laryngoscopy and intubation resulted in a trebling of the level of ventricular pressure. This may have a negligible effect in normal patients who can compensate by increasing their systemic arterial pressure, but may not be harmless in the child with abnormal intracranial dynamics who may have lost autoregulation of cerebral blood flow and cannot compensate by increasing the systemic arterial pressure to maintain cerebral perfusion. Remarkably, at the time the vocal cords are touched by the endotracheal tube a "momentary reflex pressure response" occurs.

At the height of the pressure response the child is staring and unresponsive with nystagmus,

and as the pressure drops to about 25 mm Hg the child starts to rouse again and is awake when the ventricular pressure is back in the normal range. An atypical response to ketamine is occasionally seen whereby the ventricular pressure ascends in a spikey fashion not unlike that seen during rapid eye movement sleep with hypnagogic myoclonus.

Hyperventilation lowers the ventricular pressure increases induced by ketamine and ketamine given while ventilation is controlled and blood gases stable results in no increase or change in the ventricular pressure. Suxamethonium causes no change in ventricular pressure ordinarily but suxamethonium given after ketamine induced pressure enhances the pressure rise and blocks the hyperventilation effect which normally reduces the intracranial pressure.

Other anaesthetic drug effects have been demonstrated in children and these include nitrous oxide, fentanyl and pancuronium, all of which result in no change of ventricular pressure. Sodium thiopentone produces a marked drop in ventricular pressure level, diamorphine a minimal reduction and halothane and other volatile anaesthetic agents result in a marked increase in ventricular pressure.

The increased intracranial pressure seen after ketamine is a result of an increase in cerebral blood flow of the order of 60–80% and during rapid eye movement sleep an increase in cerebral blood flow as much as 50% has been noted. During intracranial pressure monitoring sleep recording is mandatory as a test of physiological compliance. Because of the similarities in some of the atypical recordings we have compared the sleep and ketamine pressure responses in 10 patients in this series. Ketamine responses were more excessive than sleep responses ($p < 0.05$) and therefore ketamine and sleep pressure rises are not directly comparable and cannot be used as a test of physiological compliance in children with abnormal CSF dynamics.

This paper concludes that ketamine induces raised ventricular pressure to very high levels in children with abnormal CSF dynamics or raised intracranial pressure but only very slight increases in other children. Ketamine should not therefore be used in these situations unless facilities exist for the monitoring and relief of the CSF pressure throughout this form of anaesthesia.

News From Regions

TAYSIDE REGION

Following a most enjoyable and successful scientific meeting in November 1978, the department was deeply saddened by the sudden and untimely death of David Dalrymple, whose energy and enthusiastic application of his knowledge in many different spheres will be remembered by all his colleagues.

The trial of epidural top-ups by midwives, in which Dr. Milne played a major role, was completed successfully and has now been implemented. During 1978 Dr. Hamish Finlay set up a pain relief clinic for the area which has continued to expand and is now being run by Dr. Bisset.

Junior staff continue to maintain a higher than average pass rate in both Primary and Final F.F.A.R.C.S. examinations and we are particularly pleased to hear that Dr. Takroui is now Professor at the University of Jordan and is the first Fellow of the Faculty in Jordan. Following Dr. Lawson's successful visit to Amman we welcome this year two associate professors from the university there who have joined the department in preparation for the Fellowship examinations.

1979 has seen quite a few staff changes. Dr. Alf Shearer from Aberdeen, and Dr. Peter Taylor also from Aberdeen but via Nottingham, have joined the department as consultants, and Drs. Mann, Allison and Sherriff have been appointed Senior Registrars. We congratulate Dr. Janice Richard on her appointment as consultant at the Neurological Institute in Glasgow and Dr. Gordon Smith as consultant in Kirkcaldy. Hamish Finlay, having completed his Higher Professional Training, has left the fold to join his flocks on the hillsides of Rannoch. Many of us will envy his freedom on the pastures while we are penned up in the Stygian gloom of the Ninewells Theatre Suite. We wish him and his family well and he will always be welcome back should the red sky at night lose its delight.

GRAMPIAN REGION

The occupation of the new "Phase II" building by various medical units, to be followed by surgical units, has begun.

Our prime interest in the building is perhaps the general purpose Intensive Therapy Unit lying unoccupied, with its equipment, purchased four years ago, quietly mouldering and becoming obsolete in some basement store. It is unfortunate

that now there is unanimous support for such a unit by all medical staff and acceptance by the administration — a result of persistent lobbying by those involved in intensive therapy — there is severe financial constrain on the Health Board mitigating against an early opening.

Over the past year, in spite of being fully staffed, our experience is of increasing difficulty in meeting the clinical commitment. The reasons for this are improved junior cover for the Respiratory Unit, increased holiday entitlement for junior staff, a desire on their part for time rather than U.M.T's and an insidious increase in workload over the years. There will be a major problem in persuading the Administrators that some expansion of the anaesthetic establishment at both senior and junior level is necessary.

Unlike last year, there have been a number of changes in personnel. Those who have left or are leaving to take up posts elsewhere are —

Dr. A. Shearer — Consultant, Dundee, Dr. A.T. Morris — Senior Registrar, Leeds, Dr. R.A.M. Mann — Senior Registrar, Dundee, Dr. W.A. Chambers — Research Fellow, Edinburgh Royal, Dr. A.A. Salama — Registrar, Sunderland.

Our good wishes go with them.

We congratulate the following — Dr. J.A.S. Ross, Dr. W.A. Chambers and Dr. M. Sue-Chu who were successful at the July sitting of the Fellowship exam and sympathise with Dr. L. Aldridge who at the moment of writing has just had an epidural to aid the delivery of her first baby. It worked!

SOUTH EAST REGION

Last year it was reported that the National Health Service side of our anaesthetic "area" had suffered from staffing problems; this year we have to report that the introduction of the new curriculum has caused the academic side considerably increased anxiety and work. However, not only was this challenge ably met but this was done in the face of considerable change in the staffing at lectureship grade. Dr. D.H.T. Scott left his post of lecturer in dental anaesthesia to become a senior registrar, leaving a vacuum as the University decided not to refill his post in the light of the economic situation. Dr. David Wright, not long back from his sojourn in Newfoundland, responded to a call to the consultant ranks in the Western General Hospital and Dr. Walter Nimmo

was enticed to the University Department in the Western Infirmary, Glasgow, as a Senior Lecturer. We wish them well as we also do Dr. David Littlewood who has replaced Dr. Ainslie Crawford in the Royal Infirmary consultant ranks; it is hoped that Dr. Crawford will enjoy better health now as he was forced, on grounds of ill-health, to retire early. Another early retirement was that of Dr. D.W. Shannon after many years as a consultant in the Royal Hospital for Sick Children; this post has not as yet been refilled. A shorter association with the Western General was severed when Dr. H. Bauld recrossed the Atlantic to work in Alberta — Dr. Murray Carmichael obtained the vacated post in neurosurgical anaesthesia.

Two "home" registrars, Dr. R. Meek and Dr. G. Park, were elevated to be senior registrars in the area, whilst in the registrar grade these and other vacancies caused the promotion of four of our own S.H.O.s. and the importation of two new faces from outside. The programme for H.P.T. of senior registrars is under constant review but those rotations so far devised have proved impracticable, mainly because of service requirements which necessitate yet more planning. The registrars' training programme has recently undergone modification and would appear to be working well; this too is being closely monitored and it is expected that further changes will occur from time to time.

Professor J.D. Robertson was one of the first recipients of a Pask Certificate of Honour, presented Annual General Meeting of the Association of Anaesthetists in recognition of his services to international anaesthesia.

Dr. W.R. MacRae, the current President of the Edinburgh & East of Scotland Society of Anaesthetists, has been elected Chairman of the Area Medical Committee — his canny humour and ability to both grasp the point rapidly and present his argument succinctly make him an ideal choice.

What of the bricks and mortar? There is little to report. Phase I of the new Infirmary stands majestically empty and uncommissioned with its four (or is it five?) fine chimney funnels occasionally omitting white vapour with a roar like Concorde! (what can we expect of it when it functions?) Throughout the rest of the city, alas, little progress.

HIGHLAND REGION

I am pleased to be able to report that the two new operating theatres at Raigmore Hospital

have finally been completed and although not yet fully staffed, appear to be working satisfactorily. Phase Two of the new Inverness Central Hospital has got off the ground, literally, and progress appears to be more or less on schedule. So far, so good.

The other thing that has got off the ground this year is the Obstetric Epidural Service. Demand is at present small but we expect it to increase to about 200–300 per year, or 10%–15% of deliveries. The introduction of the Epidural Service has been made possible by an increase in Registrar establishment from one to two. Dr. M. Vrbanic joined us at the beginning of the year as Registrar and Christine Martin was promoted from S.H.O., following her success in the D.A. Examination. Dr. Gordon Pugh has joined us as S.H.O.

WESTERN REGION

Much has taken place in our region during the last year.

The Glasgow and West of Scotland Society of Anaesthetists acted as host to the Annual Meeting of the Association of Anaesthetists of Great Britain and Ireland which was held in the McRobert Centre at Stirling University in September. This meeting attracted an attendance of nearly 500 anaesthetists many of whom were accompanied by their wives or husbands. The Scientific Programme was of the highest quality and the venue of the meeting was generally agreed to be one of the most attractive ever. The social events included an informal reception at Stirling Castle at which we were welcomed by the Provost of Stirling, and a Civic Reception at Glasgow City Chambers, where following dinner we were officially welcomed by the Lord Provost and then treated to a memorable concert by the Glasgow Youth Choir. The Ladies "and other accompanying persons" programme included a cultural morning at Scone Palace, a gusty sail on Loch Katrine and expensive stops at such well known watering places as the Kilmahog Woollen Mill and the Strathearn Glass Factory, both of which were almost totally relieved of their stock by the invading hordes! The Annual Dinner took place at the Pathfoot Restaurant at which guest speakers included Dr. W.A. Crammond, Principal of Stirling University, and Sheriff J. Irvine Smith who gave a hilarious performance to round off a very successful meeting.

We were all very delighted to see Professor Donald Campbell being honoured by his timely election to a Vice Presidency of the Association of Anaesthetists this year. At the Stirling meeting, Dr. Andrew Tindal was presented with the Pask Certificate of Honour in recognition of his distinction. This gave particular pleasure to all his colleagues in the West of Scotland.

A Jubilee Dinner was held at the Western Infirmary in November to mark the 25th Anniversary of the founding of the Department. The 160 members and guests and their wives who enjoyed the excellent meal, were then addressed in turn by Dr. Herbert Pinkerton, the distinguished founder of the Department, Dr. James Crawford, recent consultant-in-charge and latterly Chairman of the Division, and Sir Andrew Kay, Regius Professor of Surgery. Dr. Alistair Spence, Reader in Anaesthetics in the University Department at the Western Infirmary was unfortunately unable to attend the dinner through illness and we were thus robbed of his flamboyant style of speaking together with his editorial wit. Dr. Hugh Wishart, Chairman of the Division, took the chair for the evening and masterminded a most enjoyable occasion.

A very successful meeting of the Anaesthetic Research Society was held in Glasgow in July in the Boyd Orr Building.

In the last year, we have seen the departure of Dr. James Crawford and Dr. Kenneth Grigor, consultants-in-charge of the Western and Victoria

Infirmarys respectively. Dr. Bill Auld (Western) and Dr. Bob Keir (Dumfries) have also retired. We wish them all a happy retirement.

Dr. Graham Smith left his post as Senior Lecturer at the Western Infirmary to take up the new Chair of Anaesthesia at the University of Leicester. He has since enticed several Western trainees south to join him. We have welcomed in his place Dr. Walter Nimmo who has come from the post of lecturer in Anaesthesia at the University of Edinburgh.

New consultant appointments include the following: Dr. Tom McCubbin to the Western Infirmary; Dr. Andrew Hothersall and Dr. Douglas McLaren to the Victoria Infirmary initially (but in time to be spirited away to the Eastern Infirmary when the Cardiac Unit is firmly established there); Dr. George Harvey and Dr. Terry Nunn to Law Hospital; Dr. Barbara Miller to Paisley; Dr. Bob Law to Falkirk; Dr. Veronica Reid to Monklands; Dr. Brewster to Dumfries; and Dr. Kenneth MacKenzie and Dr. Stanley Miller to North Ayrshire, where the usual exasperation continues unabated at the further delays in the opening of the North Ayrshire District Hospital.

New Senior Registrar appointments include Dr. Dora Cosser to the Southern General Hospital, Dr. Anne Burke, Dr. Gordon Weetch and Dr. Sandy Gillies to the Victoria Infirmary, Dr. Alistair Naismith and Dr. Dev Sewnauth to Stobhill General Hospital and Dr. David Herd, Dr. Bill Kerr and Dr. Guy Routh to the Royal Infirmary.

COMMITTEE REPORTS

SCOTTISH COMMITTEE FOR HOSPITAL MEDICAL SERVICES

The Committee has held two routine (plus one special) meetings in 1979, and on each occasion a great deal of discussion has taken place about the now defunct "New Contract", and about the subsequent "Package Deal" offer since accepted by CCHMS and about to be implemented. The general opinion was that the latter has less to offer Scottish hospital staff than it has for England and Wales, but that it should be accepted in order that conditions of employment should remain similar throughout the U.K.

Concern has been expressed at the failure to resolve the dispute in Fife about responsibility for the organisation and management of scientific services.

Early in the year progress seemed possible in the provision of care for doctors who cover substantial mileage on duty, but since the election it has become apparent that such provision is unlikely in the foreseeable future.

Other topics discussed included the place of O.D.As. in the scrub team, the employment of

pre-registration house officers in Accident and Emergency Departments and the Reports, "Medical Manpower — the next twenty years", from DHSS, and, "A Service for Patients", from the Royal Commission on the NHS.

NMCC: ANAESTHETICS SUB-COMMITTEE

This Committee met on a number of occasions throughout the year. The main matter of business has been to receive and debate the Report of the Working Party on Dental Anaesthesia. This Working Party, set up in July 1978, was a combined one comprising members of the Anaesthetic Sub-Committee and the National Dental Consultative Committee under the chairmanship of Dr. A.A. Spence. Their remit was to consider the use of general anaesthetics and sedation in dental surgery in Scotland and to report. The final report has now been approved by the two parent committees and forwarded to the NMCC for further debate and possible approval. It is unlikely that a final recommendation will go forward to the Scottish Home and Health Department till the summer of 1980, since many bodies including the Deans of the Dental Schools and Postgraduate Deans have yet to consider the report and its implications. The Faculty of Anaesthetists will be among those bodies consulted in due course.

The Anaesthetic Sub-Committee have also commented on the Scottish Health Service Planning Council's draft report on "Health Priorities in Scotland for 1980-86" — a document intended to follow on the original "The Way Ahead" document. The Committee have submitted suitable comments, including reference to the rather cursory consideration given to the speciality of anaesthesia.

STANDING COMMITTEE, SCOTLAND:

FACULTY OF ANAESTHETISTS

At its October meeting the Committee welcomed the new Dean, Dr. J.F. Nunn, who gave a cogent account of likely trends in Faculty business. Dr. Nunn's immediate predecessor, Dr. J.E. Riding, was a faithful and valued participant in the Committee's meetings and we wish to record our indebtedness to him.

In a busy year the overriding impression is of an increasing number of documents — detailed and some with far reaching implications — which are the essence of "consultation with the profession". Perhaps an unexpected feature of this process is that the deadlines for a response are often surprisingly short, and the sensitive among us feel that this is specially so at holiday times.

The Department of Health's "Medical Manpower — the next 20 years" considers, in a rambling manner, formulae for predicting manpower needs and the likely new factors influencing them. The use of non-medical help, the influence of technological development, and the role of non-consultant doctors (such as those in the Hospital Practitioner Grade) are discussed. The key part of the document, however, is the proposed alteration of the career structure in which the training grades would be reduced in size and the career posts increased. A particular risk to the maintenance of standards, in our view, would be the creation of a "sub-consultant" career grade. Clearly any firm proposals arising from this document will need to be scrutinised carefully.

The Scottish Planning Group's paper on the future of health care in the next decade calls for a drastic diversion of resources from specialist to primary care. It sets out targets rather than methods for achieving them. For example, it calls for maintenance of the present level of acute care against a reduction in acute beds of approximately 4,000. An increase in obstetric cases is anticipated but it is recommended that the staffing of obstetric units should remain unchanged. There are proposals to reduce the numbers of nursing ancillary, and administrative staff throughout the hospital services. The implications of these proposals for the referral specialists are discussed in detail but the document is almost silent on the likely impact for "service" specialties such as anaesthesia. The Standing Committee, while accepting the need for the broad strategy, has challenged the authors on this last aspect.

The Faculty tutor scheme is now established in Scotland although in the Glasgow region Assistant Regional Educational Advisors have been appointed as a more appropriate alternative to tutors. The names are:

Tayside	—	Dr. John Millers
Grampian	—	Dr. R. Davidson-Lamb
	—	Dr. J. McG. Imray
	—	Dr. J.A.R. Pook
Lothian	—	Dr. I.T. Davie
	—	Dr. C. Howie
	—	Dr. J. Kyles
	—	Dr. A.H.B. Masson
Greater Glasgow (Assistant REA)	—	Dr. W.L.M. Baird
	—	Dr. C.S. Cairns
	—	Dr. G. MacNab

Dr. J. Kyles and Dr. A.A. Spence retired in rotation but have been re-elected to serve for a further period of three years.

OBITUARY

Dr. DAVID DALRYMPLE

Dr. David Dalrymple died suddenly on 26th November, 1978, while at work in the wards of Ninewells Hospital.

Born in St. Andrews on 29th April, 1944, Dr. Dalrymple graduated M.B., Ch.B. at St. Andrews University in 1967. He started his anaesthetic career in the West Cumberland Hospital in January 1969, and the following October took up an appointment as assistant lecturer in Physiology at Manchester University. He later moved to Glasgow where he completed the bulk of his training, including a year as M.R.C. research fellow, and he was appointed consultant anaesthetist to the Dundee Teaching Hospitals in July 1974.

Dr. Dalrymple had a very quick mind, and an exceptional enthusiasm for his speciality. His clinical ability, based on a detailed knowledge of many aspects of medicine, was outstanding. Allied to a prodigious capacity for hard work, these

qualities were particularly suited to Intensive Care, which was his main interest. He played a major part in the development of the I.C.U. in Ninewells Hospital, constantly making colleagues aware of its potential, and he actively encouraged the participation of paraclinical specialties, establishing with them valuable links in treatment and research. He was a stimulating teacher of both staff in training and under-graduates; with students he was especially popular and at the time of his death was honorary Vice-President of the Dundee University Medical Society.

The memory of Dr. Dalrymple will be held in respect by his many colleagues and friends. Although he held his consultant post for less than five years, his contributions will endure. He was also a devoted family man and our sympathy goes to his wife, Morag, and to his three young daughters on their tragic loss.

THE SCOTTISH SOCIETY OF ANAESTHETISTS

FOUNDED 20th FEBRUARY, 1914

A. Constitution

- (1) The name of the Society will be "THE SCOTTISH SOCIETY OF ANAESTHETISTS."
- (2) 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.
- (3) The Society will consist of Honorary Members, Senior Members, Ordinary Members, a President, a Vice-President, a Secretary, a Treasurer and an Executive Council formed by the above Office-bearers, together with six Ordinary Members, two from each of the regions centred on Edinburgh and Glasgow and one from each of the regions centred on Aberdeen and Dundee.
- (4) Ordinary Membership will be restricted to Members of the Medical Profession practising the speciality of Anaesthetics.
- (5) Senior Members may be elected from Ordinary Members who have retired from active practice.
- (6) A meeting will be held every year, at a time and place to be appointed by the Executive Council.

B. Election

- (1) Ordinary Members may be elected by a two-thirds majority of those present, at any regular meeting, nominations by an existing Member to be sent to the Secretary one calendar month before the day of election.
- (2) Nominations for Vice-President, Secretary and Treasurer will be made annually by the Executive Council, and will be circulated to Members along with the notice of the Annual General Meeting. Any further nominations for these Offices may be submitted to the Secretary 14 days before the date of the Annual General Meeting.
- (3) Regional Representatives will serve on the Executive Council for a period not exceeding three years, and on retiring from office will not be eligible for re-election to the Council within a period of one year.
- (4) Nominations for vacancies in the Executive Council created by retirement will be called

for at the Annual General Meeting, and a ballot held if necessary.

- (5) The President who retires at the Annual Meeting will automatically become an additional member of the Executive Council for the ensuing year.

C. Duties of Office-Bearers and Members of Executive

- (1) The President will preside at the Meetings both of the Society and Executive Council, and will have a casting as well as a deliberative vote. He will hold office for one year.
- (2) The Vice-President will act for the President when required to do so. He will automatically become President for the following year.
- (3) The Secretary will keep all the records of the society, will notify all Members of the business of the Society, and send accounts of the Meeting to the Journals. The Treasurer will collect subscriptions, pay accounts and render a financial statement to the Annual Meeting.
- (4) The Executive Council will be consulted by the President upon all matters concerning the conduct and interests of the Society, and will be permitted to record their vote by post upon any question in dispute.

D. Subscription

- (1) Ordinary Members will pay an annual subscription of £1; Registrars and House Officers will pay 10/-.
- (2) Any Member who has not paid his subscription for the current year may, at the discretion of the Executive Council, cease to be a Member of the Society.

E. General

- (1) No alteration of, or addition to, the rules may be made save at an Ordinary Meeting after one month's notice given to the Secretary, who will place the suggestion upon the Agenda.
- (2) Personal as well as official guests may be invited to the Meetings and Dinners of the Society.

GLASGOW AND WEST OF SCOTLAND
SOCIETY OF ANAESTHETISTS

CURRICULUM 1979-1980

1979

Friday, October 5th:

Combined Meeting with Edinburgh and East of Scotland Society of Anaesthetists - *in Glasgow*.

Speaker - Prof. J.N. Norman, Department of Environmental and Off-Shore Medicine, University of Aberdeen.

Tuesday, November 20th:

Dr. A.F. Lever - M.R.C. Blood Pressure Unit, Western Infirmary.

1980

Wednesday, January 23rd:

Members' Night - presented by members of Division of Anaesthesia, Western Infirmary.

Thursday, February 14th:

Dr. J.C. Stoddart, Royal Victoria Infirmary, Newcastle-Upon-Tyne - "The Rational Use of Intensive Therapy".

Tuesday, March 18th:

Presidential Address - Dr. D.D. Moir.

Thursday, April 17th:

Annual General Meeting.

Thursday, May 22nd:

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

Further details of meetings from Dr. J.W. Collins, Department of Anaesthesia, Western Infirmary, Glasgow.

NORTH & EAST OF SCOTLAND
SOCIETY OF ANAESTHETISTS

SYLLABUS 1979-80

Meetings are held at 8.00 p.m. in Aberdeen Royal Infirmary, Ninewells Hospital and in Stracathro Hospital, Brechin, unless otherwise notified.

Thursday, 17 September 1979 Stracathro:

Regional Anaesthesia

Dr. D. Bruce Scott, Edinburgh.

Thursday, 8 November 1979 Dundee:

Malignant Hyperthermia

Dr. Richard Ellis, Leeds.

EDINBURGH & EAST OF SCOTLAND
SOCIETY OF ANAESTHETISTS

SYLLABUS 1979-80

Meetings will be held in the Royal College of Surgeons, Nicolson Street, Edinburgh, at 7.45 p.m. for 8 p.m. unless otherwise stated.

1979

Friday, October 5th:

Combined Meeting with Glasgow and West of Scotland Society of Anaesthetists.

Tuesday, November 6th:

Dr. W.R. Morton - "Presidential Address".

Tuesday, December 4th:

Dr. C.J. Hull, Department of Anaesthetics, The Royal Victoria Infirmary, Newcastle - "Electrical Safety in the Operating Theatre".

1980

Tuesday, January 22nd:

Dr. K. Boddy, Senior Lecturer, Department of Obstetrics and Gynaecology, Edinburgh University - "Foetal Monitoring".

Tuesday, February 19th:

Members' Night.

Friday, March 7th:

Annual Dinner.

Tuesday, March 18th:

Professor M.R. Bond, Department of Psychiatry, University of Glasgow - "A Psychiatrist's View of the Management and Analysis of Chronic Pain Problems".

Tuesday, April 22nd:

Annual General Meeting.

Further details of meetings from Dr. J. Wilson, Department of Anaesthesia, Royal Infirmary, Edinburgh.

Thursday, 13 March 1980 Stracathro:

Registrars' Papers.

Thursday, 10 April 1980 Aberdeen:

The Separate College

Dr. Peter Baskett, Assoc. of Anaesthetists.

Thursday, 15 May 1980 Stracathro:

Annual General Meeting and Presidential Address.