THE ANNALS OF THE SCOTTISH SOCIETY OF ANAESTHETISTS

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Scottish Society of Anaesthetists

Council for 1997- 1998

Office Bearers

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		retires
Aberdeen	Dr.G.Byres	1999
Central	Dr.A.McDonald	1998
Dundee	Dr.E.Wilson	1999
Highland	Dr.J.May	1998
South East	Dr.A.Lee	1998
	Dr.L.Morrison	1999
West	Dr.E.McGrady	1999
	Dr.D.Bennie	1998
Trainee	Dr.P.Cupples	1999

Programme for 1998

Registrars Prize: Entries to be submitted to the Hon.Secretary by 28th February 1998.
Annual General Meeting: Peebles Hydro Hotel 24-26th April 1998
Trainee's Meeting: Stirling 11-12th June 1998
Scientific Meeting and Gillies Memorial Lecture: 30th October 1998, Edinburgh
Golf Outing: Ladybank 28th May 1998

PRESIDENT'S NEWSLETTER

Iain A.Davidson

In the past Presidents have remarked on the changes and stresses which continue to affect the profession and the specialty. This year proves to be no exception. The results of the General Election in May and the Referendum in June have still to make their impact as will, in due course, the Acute Services Review.

There can be little doubt that the establishment of a Scottish Parliament will ensure that Health has a higher focus. Members of the Scottish Parliament are likely to take a considerable interest in health topics and it will be important for all medical organisations, including our Society, to be prepared to respond to this interest and, where appropriate, to influence and lead. While many issues can be dealt with by the Colleges, in some areas their constitutions restrict their ability to act. The Society should be prepared to live up to its constitution to "conserve and advance the interests of anaesthetists".

In many of these matters it will be essential to work closely with the Scottish Standing Committee of the College, which was established as a result of pressure from this Society. Steps have already been taken to ensure closer working. The SSC has already extended an invitation to the Society to send an observer to its meetings and your Council has agreed to reciprocate.

The incipient wider constitutional changes have stimulated your Council to review its functions and that of the Society. A number of issues including relations with the SSC, the Society's financial base, response to the demands of CME, responsibilities of council members and enhanced representation of trainees, are being reviewed and recommendations will be made to the Society at the Annual General Meeting.

This year the Society's meetings continue to follow on the outstanding success of last years Joint Meeting with the Society of Anaesthetists of the South West Region. The Trainees' Meeting in June broke new ground by being held over two days in the excellent conference facilities in Stirling. The format, with an overnight stay, clearly appealed to those who attended and was made more memorable with the Reception and Ceilidh in Stirling Castle. The social side was matched by a first class educational programme. Alan MacDonald and his team of Liz McGrady, Pam Cupples and Mark Worsley are to congratulated on their efforts. Recognition is also due to SIMS Portex for their generous support.

This year the Society's Scientific Meeting in Dundee rightly popular and once again one appreciates the facilities which are available in a custom built conference centre. Neil Mackenzie can be justly proud of the fare he laid on. There is no doubt that if the Society can continue to organise meetings of the quality of the past years it can look to continuing success in its object of "furthering the study of the science and practice of anaesthetics".

It is now many years since the Society raised the issue of distinction awards in the Specialty but recent figures indicate that Anaesthetics is once again falling behind. Council is reviewing this and, if appropriate, will make representations.

Manpower issues are notoriously complex and often an apparently sensible solution leads to yet another problem. Council continues to be concerned over Trainee promotion prospects. Current College regulations do not permit SHOs to sit the FRCA. To make matters worse it appears that when SHO3s apply for SpR posts in England they are being overlooked in favour of local candidates with less experience. A College Council decision at the time of writing (November 1997) will allow SHOs to sit the FRCA which will help the situation. However, the linked proposal to lengthen the SpR time from four to five years will diminish the promotion prospects and reduce the number of
accredited anaesthetists available to fill consultant vacancies. It may be that a solution to the promotion logjam will be achieved by reducing the number of SHO posts while increasing the number of SpR posts

The past year has seen the celebration of the discovery of the anaesthetic properties of chloroform. This was marked by an international meeting in Edinburgh aligned with a meeting of the European Academy. To commemorate James Young Simpson's contribution a memorial plaque was unveiled in St. Giles Cathedral. The Society was a major contributor to this memorial and I represented the Society at the ceremony.

It was a particular pleasure to be invited to represent the Society at the Golden Jubilee Meeting of the Society of Anaesthetists of the South West Region in Bristol and to be able to convey to them the Scottish Society's congratulations and good wishes.

Members who attended the last AGM will be aware that that was the last occasion on which Mr.Peter van Dyke would be in charge at Peebles as he will retire early in 1998. To mark the occasion the Society presented him with a quaich as a memento of our appreciation. From his response at the time and his subsequent letter of thanks it is clear that he was very appreciative of the Society's recognition.

As President I owe a debt of gratitude to the Past President Alastair Spence, whose wise counsel is happily still available to us, and to my Vice President John Thorburn. The Secretary, Colin Sinclair and the Treasurer, David Scott, have been a great support to me and the Society is indebted to them for the work they do on the Society's behalf. It is a pleasure, too, to recognise the contributions of the Members of Council whose responsibilities, given the changes presaged above, are likely to increase.

Editorial

This years guest lecturer at the Peebles meeting was Graham Smith, recollecting on the editorship of the British Journal of Anaesthesia. It makes interseting reading and a viewpoint I empathise with.

This last year has again been an active one for our Society. Pam Cupples joined Council as the first Trainee Representative. Having a Trainee on Council has been extremely helpful in bringing another viewpoint to discussions and is an innovation we have a past president, Alan Macdonald, to thank for. I am sure I speak for all members on Council in thanking her for her contributions and efforts particularly with regard to the Trainee Meeting this year.

Trainees have again been very much in the mind of the Society this year. The introduction of any new training structure was almost bound to present its own problems. There is an old adage to which I hold - if it ain't broke don't fix it - the system evolved to suit the needs. The needs often change but be wary of dramatic changes in response to or anticipation of those needs.

Since the introduction of the SpR grade, and with it, our College's regulations on eligibility to sit the Final FRCA, I have been acutely aware of a problem I term the 'stagnating SHO'. There is nothing worse than to see highly motivated trainees pass their Primary FRCA and then create an artificial barrier which prevented them sitting the Final Part without giving them an interim objective. They stagnate.

Thankfully, our College has seen fit to alter the eligibility rules, although I suspect for other reasons - most prominently the drive to ensure that those individuals in Staff Grade positions have attained FRCA and in the long term maintain standards within our profession. This is a laudable objective and one I fully support.

Nevertheless, there have been a number of 'spin-offs'. One is that trainees with a minimum of 30 months experience in recognised posts within the specialty are now eligible to sit the Final Part FRCA. In Scotland, and I suspect elsewhere if you look at the numbers, this at least gives our 'experienced SHO's' an objective. If they attain FRCA before or shortly after entering the SpR grade, there is now the time that it inevitably takes, for them to plan and arrange their 'Option Year' for year 2 of the SpR training programme - time was always a problem in this respect when year 1 was spent concentrating on final FRCA and all the uncertainty that went with that.

I do, however, have at the back of my mind a concern that in the longer term FRCA may become, by evolution, an entry requirement into the SpR grade. There is a current proposal to extend the SpR training in Anaesthesia from 4 to 5 years. I would tend to the view, expressed to me by many consultant and trainee colleagues, that four years at SpR level in Anaesthesia, with reduced hours of work for trainees, is too short and would be inclined to support this change. If we were to combine these two propositions, we effectively end up with an 8 year training programme - 3 years at SHO and 5 years at SpR level. Sound familiar? Fundamentally, it is a question of how you interpret a six year training programme - we could perhaps learn a few things from our Surgical and Physician colleagues.

The other question that is often raised is what do about the 'bottleneck' of promotion from SHO to SpR. Unless we introduce a seamless training programme from novice to consultant, that 'bottleneck' is always going to exist. It acts as the major, but not only, sieve to Consultant appointment. Remove it entirely? That is a question I leave open to you. As a previous 'Programme Director' I know, locally, our 'fall out' rate from trainees coming into Anaesthesia and being appointed Consultant, is remarkably small. I cannot put figures on it but it is an area which is worthy of study . The question has to be 'how wide should the bottleneck be'. I believe that it may be a bit wide but we are not far off the mark, and the mark is determined by the perception of the role of the Consultant Anaesthetist. We need to re-examine this role.

Adapt, but be wary of dramatic change. The 'King's Fund' report has been interpreted as replacing fully medically qualified and trained Anaesthetists with 'Nurse Practitioners'. I could not disagree more. Anaesthesia must be administered and conducted by a medical practitioner, trained in Anaesthesia. However, I think we have to move from a philosophy of the 'independent operator' to one of a 'team leader' with all that entails. The Acute Pain Services and Intensive Care are prime examples of this move and we need to extend this philosophy into the operating theatre environment.

In returning to the stagnant SHO. Some Departments recognised this problem early on and established specialist Anaesthetic posts. In the long term this may be no bad thing. We may be building up a small number of posts in which members of the Society can impart their expertise and knowledge to motivated trainees interested in specialist training. On a wider perspective, it would be a case of 'come to Scotland and learn'.

Specialist training in Intensive Care Medicine was always an option in Scotland - you went to Glasgow! JACIT long ago gave recognition for training in ICM to a number of Departments in Scotland. The problem had always been one of funding. The establishment of the Intercollegiate Committee on Training in Intensive Care Medicine, the creation of specified Training Programmes including a Diploma in ICM and the high likelyhood of recognition by the Statuatory Training Authority of Intensive Care Medicine as a Specialty,

have prompted other areas to consider means of funding Specialist Registrar posts in ICM. There are now 5 SpRs in ICM in post in Scotland, 2 in the West of Scotland, 2 in South East Scotland and 1 in Aberdeen, with a further post likely in Dundee.

Are there the posts for those individuals to go to? I have little doubt. It is not that long ago that I remember doubt being cast on the need for new ICU's or increased ICU beds. Almost every hospital has the facility to deal with patients who come somewhere between needing HDU care and multiorgan support. Whilst our colleagues do an excellent job in that environment, I am sure they would be the first to admit the addition of a member of staff to their Department with a bit more than average experience in ICM would be of enormous benefit to both patients and staff. You might consider it 'Intensive Care in the community' but one individual who knows the consequences of a disease process and their local facilities to deal with it, are worth two beds in a central ICU. The West of Scotland Intensive Care Group, The East of Scotland Intensive Care Group and the Scottish Intensive Care Society should be acknowledged in these efforts.

At first reading, it may appear that I am contradicting some of the views of our President. Nothing could be further from the truth. As a specialty, we need to acknowledge the need for appropriate training, the differing needs of that training as our specialty develops and not be driven into compromising these needs by a short term objective.

The move of the Trainees Meeting to a fixed location in Stirling, albeit for a trial period, has proved to be a success thanks to the efforts of Allan Macdonald and Pam Cupples. However, as a previous attendee, I miss the 'hands on experience' of these meetings - we should perhaps take account of this. That may be another reason for basing the meeting in Stirling; it is the location of the Scottish Anaesthetic Simulator.

Thanks to the efforts of our four Scottish Professors of Anaesthesia, and with no disrespect, principally Professor Alastair Spence (Edinburgh) and Professor Tony Wildsmith (Dundee) we now have an Anaesthetic Simulator available in Scotland. Ronny Glavin (Victoria Infirmary, Glasgow) and Nicki Maran (Royal Infirmary of Edinburgh) have been appointed co-directors of the unit and with that combination of educational talent, it cannot do anything but succeed. It is a wonderful stimulus to CME as I anticipate my first visit!

The gratitude of our invited overseas visitors - Drs. Elena and Viatcheslav Bouline - is again evident. As I have said before, 'from small acorns, great oaks grow'. A previous visitor, Dr.Pavel Polovinkine, has returned on a Fixed Term Training Contract to the South East of Scotland School of Anaesthesia. I would like to think that, in addition to our intermittent contribution to co-sponsored teaching visits to Africa, we consider a sponsorship for a consultant to East Europe.

It would be inappropriate not to conclude without mentioning the Registrars Prize. The entries this year were outstanding in their quality. Lesley Colvin's (Edinburgh) prize winning submission is reproduced in full, and perhaps I should have considered abstracts of the others. That said, the entries are a justification of the potential of future Anaesthetists.

LOOKING BACKWARDS -LOOKING FORWARDS

I suspect that when thinking of their presidential address many of my predecessors have felt as I did of the artist Norman Rockwell in his famous cartoon of the blank canvas. Being midway between the sesquicentennial celebrations of ether and chloroform makes it an appropriate time for looking back. Looking back can be a rather sterile exercise on its own and as much of my time for the past three years has been taken up with the development of the medical brief for the new Royal Infirmary of Edinburgh, I thought it appropriate to link looking back with looking forward.

When I look back on my school days it reminds me of how great the changes have been since then. The maps on our schoolroom walls and in our atlases seemed to show the world covered with pink, representing the British Empire and Commonwealth - an appearance exaggerated by the almost invariable use of the Mercator Projection. It appeared as though the world was run from a tiny island off the west coast of Europe and to us this did not appear in the least incongruous. I can still remember someone saying in the late 1940s that the British Empire had been in decline since 1935 and finding that difficult to believe.

My first contact with the Empire beyond the seas was in 1960 when, following graduation and house jobs, I was posted, as part of my National Service, to Aden. At that time it was a far away country about which I knew very little. I did have a vague memory from boyhood stamp collecting of an image of waving palms and a sandy beaches. The reality proved rather different. It certainly was sandy but there was virtually no greenery and temperatures soared well above 90 Fahrenheit with a humidity to match. While I was in Aden the local political situation was fairly quiet compared to a few years later in the days of "Mad Mitch". It did, however, give me the opportunity to go up country to the plateau close to the Yemen border.. Here was a land totally different in population and climate from the port of Aden only a few miles away. It was inhabited by armed tribesmen and I was surprised to learn that a few years earlier it had been decided to withdraw from a small frontier fort as it was proving too difficult to defend - the bounds of the Empire were not as stable or as fixed as I had believed. Doctoring up country at times proved a humbling experience. Having heard that a doctor was in the area, tribesmen would travel for two days or more to seek advice and treatment. In almost all instances this was a frustrating experience for me and for them as they expected a sudden and dramatic cure by the injection of a magical drug. In reality, what was often required was a prolonged course of treatment which was either not available or would be unacceptable. The patient then made his way to the Souhk to consult the local hakkim who would provide a traditional remedy often at a significant price.

Life was not all drudgery and it was possible to take local leave and to visit further afield, courtesy of the RAF. I was fortunate to be able to fly to Kenya, at that time quiet after the Mau Mau rising of a few years earlier. I was able to climb Mt Kenya to a height which gave first hand experience of the effects of altitude. One was able to appreciate the appeal of the wide African countryside and to understand why Baden Powell had retired to die there.

My next posting was to Malta -the base of the British Mediterranean Fleet passing and stopping off at the then British island of Cyprus. From there with the help of Jimmy Robertson I was able to end my National Service one month early to return to Edinburgh to embark on a career in anaesthetics - a decision made at least three years before having been influenced, as have many others, by the example of Alistair Masson.

By the time that I came to return home it was clear that the Empire and Commonwealth, as I had seen and known it, was changing forever.

I spent two years obtaining the Fellowship and shortly after marrying I was fortunate in obtaining a fellowship in the University of Pennsylvania Hospital in Philadelphia. When applying for financial support for my air fare it was suggested that it would be important to show that I had chosen the cheapest available form of travel. In 1963 IATA agreements were strict and bucket shops did not exist. However, one airline still flew propeller air craft on the North Atlantic route. This was the Icelandic Airline, Loftleidir which flew from Glasgow to Reykavic and then Reykavic to New York. The one way fare was £74 which today might represent a figure 10-20 times greater - sums which today could purchase one or even two round the world tickets. If asked what it was like to fly that distance by propeller aircraft I could best reply that the first thing we did on arriving in New York was to decide to save for the price of a jet flight for the return journey. To be precise that was not the first thing we did. Our first act was

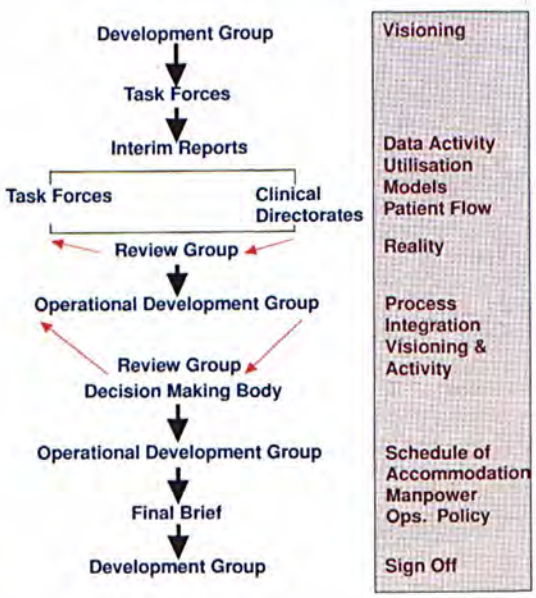
to cable home to say that we had arrived safely. It simply did not enter our heads to phone - a decision made not solely on cost which at £3 for 3 minutes was clearly high by present day standards. At that time the normal form of communication was by letter with cable being used only on rare occasions.

I have chosen these three personal examples of change over the past 30- 35 years - this country's place in the world, the cost and ease of both travel and communications as but three illustrations of the enormous changes during that time. Many others could spring to mind and we are all aware of the tremendous changes in medicine and in health care delivery.

Recognising that change is occurring all the time, how are we to plan for the future? In particular how should we plan for a new hospital? This was the problem facing the RIE Trust when it came into being three years ago with the requirement to plan for a New Royal Infirmary of Edinburgh. A greenfield site of 70 acres was available some three miles from the city centre. In the past planning a new hospital was relatively easy. One took the latest example of good hospital design and copied it as the Vic in Montreal did when they copied the plan for the current Royal Infirmary of Edinburgh. This is no longer possible as health care delivery is changing so rapidly that any hospital already built is out of date.

Planning has to start somewhere and in developing the planning process for the New RIE the Trust was fortunate in enlisting the help of a King's Fund team led by Gordon Best. They were strongly of the view that the staff of the institution should be involved in the process and that the end result
should be a design for the RIE rather than replicating a standard plan.
The first objective was to enlist the support of opinion formers within the Trust to the proposed process. The

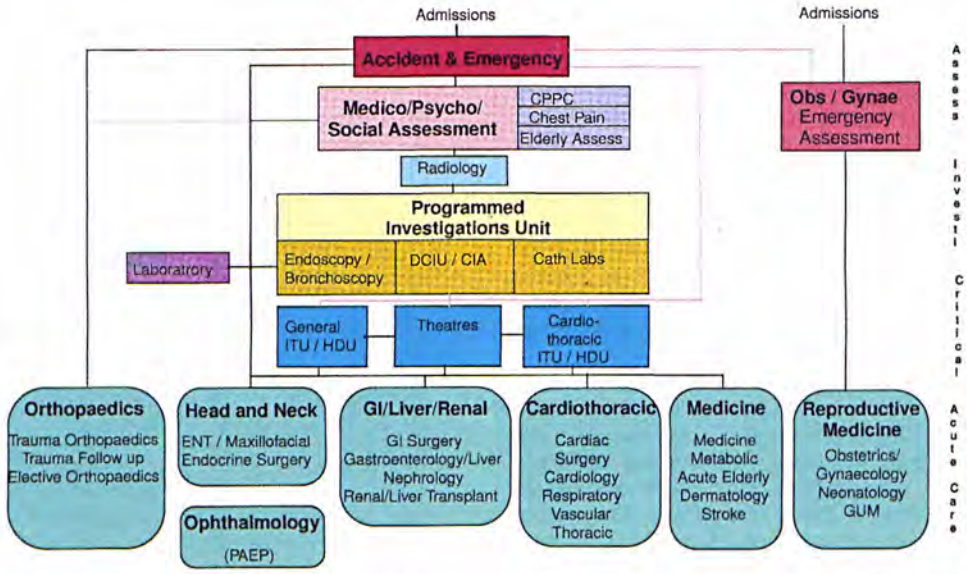
Overview of Planning Process



decision as to who were opinion formers was relatively easy based on Lyndon Johnson's aphorism of those one would wish to have inside the tent. An away weekend was held in September 1994. Initially many of those present were convinced that plans already existed and that the weekend would be an expensive and time consuming public relations exercise. However, by the end of the weekend there was unanimous agreement on and support for the way forward. It was agreed that a small Development Group would be chosen by the Chief Executive and the Medical Director from nominations sought from all members of staff of the Trust. The purpose of this group was to "Develop the Strategic Vision" - a rather grandiose title for deciding on the future direction for the NRIE, what services it should contain and to propose a framework within which further groups would take forward the planning process. There was no shortage of nominations and it proved difficult to keep the size of the group down to the 9-12 originally envisaged. Although members were there as individuals and not as representatives of a particular group it was felt important to ensure a view from as many sections of the hospital as possible and ultimately just over twenty were chosen. The away weekend had already identified individuals who would be likely to contribute and were comfortable with looking to the future. The group was augmented by invited representatives from the University of Edinburgh, Lothian Health, the Community Trust and General Practitioners both Funding Holding and non Fund Holding.

The Development Group was supported by a Trust Project Team which included a nurse, an architect, a non clinical doctor and a project manager who had recently been involved in a major development in the city. It was also supported by an external group of consultants - the Health Care Planners who were appointed in October 1994. Anyone, cynical of external consultants as I am, might ask what they contributed. They brought a knowledge of new hospital buildings and of health care delivery systems from around the world. They also had the ability to challenge thinking in the trust. At the end of the process they would bring together the views of the various teams in the trust to produce a concise brief which could go out to architects. The process was also assisted by collection of patient data which had been started when the Trust came into being in April 1994. This had identified the numbers of patients within each specialty by diagnosis and determined their lengths of stay. A review was also made of patient flows - the way in which patients are moved and what is done to them from the time of their admission to their discharge. This seemingly impersonal analysis is a powerful tool in defining what services a patient uses, who deals with them and where they move. The information gained from analysis of this information may suggest changes in the way care is provided which can benefit patients or suggest more appropriate layout of services for the future.

The Development Group met on 7 occasions between November 1994 and January 1995. Each meeting lasted five hours and typically consisted of presentations by the Health Care Planners and invited speakers followed by workshops and reporting back sessions. Much time was spent discussing what services were regarded as



core to the Trust and which could be carried out in a location other than the new hospital. This involved considering the changing balance between primary and secondary care and the recognition that primary care represented more than general practice. Several of the presentations were from speakers from the United Stated on topics such as specialised day case units and the development of managed care. Although many, including myself, felt that the US had more to learn from us than us from them, it was stimulating to be exposed to novel approaches devised in other systems and to assess their likely impact here. The meetings provided a rapid learning experience for all involved and by the fourth meeting the Group had made considerable progress in defining what should be the Trust's core activities. It was by then able to define the Strategic Vision for the New Royal Infirmary which it saw as a prime teaching hospital, which also had significant DGH responsibilities, with patient services delivered within aggregations of specialties based on systems, such as heart and lung or gastro-intestinal, which would cut across current medical and surgical boundaries. Patient care within the new hospital should be provided by an integrated approach which would involve cooperation among doctors, nurses and paramedicals as well as Sensuring care extended continuously between the hospital and the community. This followed a recognition that what mattered to the patient was that they received appropriate care rather than where or by whom it was provided.

Having established this framework the next stage was to set up specialty based groups, which we called Task Forces. Although the prime purpose of these groups was to apply the strategic vision to their own specialty it was recognised that this was also important in communicating with and involving the staff. With the establishment of these groups there were now some 200 more individuals from varied professional groups contributing to and having ownership of the process. Within the parameters of the strategic vision Task Forces were encouraged to think openly and develop ideas of how they would like to see their service develop assuming there were no constraints. This we termed "blue sky visioning". The Development Group appointed the Chairman of each Task Force. The Chairmen were encouraged to chose their Task Force from as wide a range of those working within their specialty as possible, recognising that the composition and spread would vary from specialty to specialty. In all there were 23 Task Forces with 16 of them related to clinical areas and the remainder to trust wide activities such as corporate governance and the disposal of waste.

When the Task Forces started to meet it was at once apparent that we had underestimated the learning process that those involved in the Development Group had been exposed to and that those members who had not been part of the Development Group were well behind in their thinking regarding future service provision. A rapid and condensed period of learning was provided for them by the in house Project Team and by the Health Care Planners. It was initially intended that the Task Forces would meet on four occasions. The first meeting would inform them of the Development Group's thinking. The next two would allow them to develop their own views on how they would provide their service within the newly proposed framework. The fourth meeting was allocated to writing their report. In many instances this proved to be overambitious.

Task Force chairmen were encouraged to consult with each other to identify common problems and to discuss mutual working relationships. Throughout this process they were supported both by the Project Team and by the Health Care Planners who were able to answer questions where uncertainty existed, to challenge assumptions which were thought to be complacent and to ensure that common problems were addressed centrally. Despite this, Task Forces progressed at different speeds. It was therefore not a great surprise when the Task Force reports were received in May 1995 that they varied significantly in the level to which they had espoused the new principles or had looked to the future. Some, for example, wrote their reports relating to their current accommodation.

In view of this and to speed the process a new group named the Review Group was established composed of senior clinical staff who had shown themselves attune to the new developments. The Review Group was charged with reviewing all the clinical Task Force reports to ensure consistency and challenging those in which not enough emphasis had been given to new ways of working. An example of the areas challenged was where one clinical department proposed to alter its working patterns radically and this was not reflected by others which would support it.

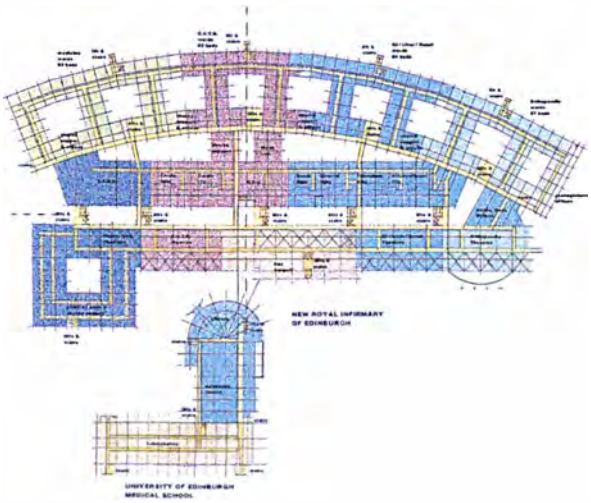
It was decided at this stage to reorganise and refocus the Task Forces and to rename them Operational Development Groups. They were now to include Clinical Directors and Service Managers and were made more multidisciplinary. This was to enable them to take on the next stage which would determine operational policies, review the schedules of accommodation and review staffing levels. It may seem surprising that, up till now, Clinical Directors had not been involved, as of right. There were a number of reasons for this, principally the recognition of the pressure on time already experienced by them. In addition there was concern that there could be a risk that clinical directors would propose a repetition of current practices rather than think forward to how ideally they would like to provide their service.

The Development Group continued to meet, augmented by the presence of Operational Development Group chairmen, to consider issues which were of a general nature or involving more than one aggregation or which were proving difficult to resolve. This process took from June 1995 -October 1995 when the Health Care Planners and the Project Team were able to write the Design Brief for the Invitation to Tender which went out in January 1996. This was not an architect's plan of the new hospital but rather a word and figure description of the services to be provided, the accommodation required and a specification of which services required to be located close to each other.

Initially there were 3 tenderers but one withdrew. The first reaction was that this was something of a disaster but it was pointed out that, given the sums of money which each tenderer was putting into the development of their bid, the remaining two would be prepared to put in even more effort nowthat their chances of success were improved.

The two tenderers gave their formal responses at a presentation in June 1996 with two very different designs. Over the summer of 1996 discussions took place between each tenderer and the Trust with proposals being made regarding improvements after which the two tenderers resubmitted and a final decision was made on the preferred bidder in September 1996.

At this stage decisions are made on 1/500 scale drawings which only show general disposition of departments. Much further work has then to be undertaken with the preferred bidder on details of room and departmental layouts but the basic plan and form of working of the hospital has been determined. Looking back, what was achieved and what did we change through the prolonged and time consuming process that I have described? Probably the principal change has been the recognition of the emergency load that the Trust has to deal with, especially in general medicine. Several specialties considered that many of their patients could be effectively investigated and treatment initiated within an actively functioning Assessment Unit. If appropriate, they could then be discharged back to the community without having been admitted to hospital. Such a unit should not be confused with the relatively passive concept of an Observation Ward. It would be sited close to Accident and Emergency, but not be part of it. It would



have ready access 24 hours a day to diagnostic and treatment facilities such as imaging and endoscopy. It would be appropriately planned to ensure that only those patients whose condition or further treatment necessitated hospitalisation were admitted. Secondly the location and relation to each other of departments has been worked out on patient flows which will ensure that patients requiring facilities outside those provided within the ward areas do not have to move further than necessary. This should be further facilitated by the aggregation of specialties by system. In addition this arrangement of aggregations should benefit cross specialty working, training of staff and research. Finally by involving as many as possible within the Trust in the process we should have ensured that there is widespread ownership of the principles of change. This should ensure that new methods of working will be readily accepted and that an early start can be made to introduce the new working practices envisaged for the new hospital.

At this stage can we say with confidence that we are right to look forward with confidence and anticipation to the new hospital or will we in the future be looking back with regret and nostalgia to the old? Time alone will tell..

RECOLLECTIONS OF AN EDITOR

The British Journal of Anaesthesia was first published in 1923, one year after Anesthesia and Analgesia, the earliest international journal of anaesthesia in the world, was founded as Current Researches in Anesthesia and Analgesia under the sponsorship of the National Anaesthesia Research Society. The first editor of Anesthesia and Analgesia was Francis MacMechan who, in 1927, presented a scroll to the Editorial Board of the British Journal of Anaesthesia for meritorious services to the specialty of anaesthesia. Whilst there have been only five editors of Anesthesia and Analgesia, there have been eight editors for British Journal of Anaesthesia. It is notable that the first editor of BJA was an American, Hyman M. Cohen, who held office from 1923-1928. The links between the United States and British anaesthesia have been strengthened over the last five years by collaboration between Anesthesia and Analgesia and British Journal of Anaesthesia, culminating with the election in 1995 of the Editor of that Journal onto the Board of the British Journal of Anaesthesia in 1995. More recently, the two journals have collaborated with the Canadian Journal of Anaesthesia and Anesthesiology in producing a single CD ROM of five years' contents of these four journals, and this was first released in 1996.

Unfortunately the records of the earlier years of British Journal of Anaesthesia are sparse and there are few photographic memories of Board meetings, although research of minutes of Board meetings extend back at least 40 years.

The author of this article was invited to become Editor of British Journal of Anaesthesia in 1987 (Table 1).

Editors	
Hyman M.Cohen	1923-28
Joseph Blomfield	1928-47
E.Falkner-Hill joint	1947-58
T.Cecil Gray	
T.Cecil Gray	1958-63
J.Edmund Riding	1963-73
Alastair A.Spence	1973-83
William Fitch	1983-87
Graham Smith	1987-97

Table 1: Editors of the British Journal of Anaesthesia

At that time the Journal was producing 10 general issues per year and two postgraduate educational issues. There were approximately 300 manuscripts submitted per year and because all the data were held on card files and processed manually, there was a relatively long submission to acceptance interval. It was clear that the journal had been severely under-resourced in the past and it was only during the Editorship of Professor Alastair Spence that the perilous financial state of the Journal was overcome by his insistence on changing publishers to MacMillans. By 1987, the financial state had improved to an extent that it became feasible to introduce modern methods of office management and data handling. However, two and a half years elapsed before a computerised database was installed in the Journal Office in 1990 and from January 1991, all data have been tracked using a commercially available database - the Richards Manuscript Tracking System.

In 1987, the major objectives in the Journal Office were to attempt to attain as short an acceptance to publication an interval as possible, to obtain first-class assessors' reports and to deal rapidly with all communications entering the Journal Office. For the Readers, it was our mission to ensure that at least some part of the Journal contained an item of interest to every single reader, thus it was necessary to attempt to include at least one editorial, correspondence, book reviews, original articles and review articles in every issue. As it was hoped to publish a single review article in every issue, in view of the progressive increase in manuscripts submitted for potential publication, it was felt that this reduction in space for original articles had to be counterbalanced by reducing the number of postgraduate issues from 2 to 1 per year. Other changes which occurred included the formation of links with the College of Anaesthetists in 1990 (subsequently the Royal College of Anaesthetists in 1992) and a change to the A4 format in 1992. Between 1987 and 1997 there were huge changes in activity within the Editorial Office largely as a result of the progressive increase in the number of manuscripts submitted for potential publication.

In 1978 there were approximately 300 manuscripts submitted per annum and in 1996 this had increased to 720. This was accompanied by a gradual reduction in acceptance rate from almost 50% to 38% (Fig. 1).

The increased rejection rate was such that the size of the

Journal increased by almost 50%. These changes hide a worrying trend in that the proportion of manuscripts submitted from the United Kingdom has not kept pace with that from the remainder of the World. Indeed between 1992

and 1996 there was a 13% increase in manuscripts submitted from Continental Europe, 11% from outside Europe, but a 4% reduction from the United Kingdom. It is not apparent that the proportion of manuscripts from the United Kingdom submitted to other anaesthetic journals published within the United Kingdom has increased substantially and this seems to be fairly good evidence therefore that the total extent of research activity in anaesthesia within the United Kingdom has declined over the last 4-5 years. The reasons for this diminishing output have not been analysed but the hardships faced by academic departments of anaesthesia have been described in editorials elsewhere (1,2). In summary, it is likely that there are four mains reasons for the reduced performance within the UK:

First, there has undoubtedly been a reduction in competition for consultant posts, many of which are currently vacant and cannot attract suitable applicants. Consequently, there has been less incentive for senior registrars to undertake research because of lack of competition.

Second, NHS consultant anaesthetists have been overwhelmed by the huge increase in their non-clinical duties, particularly management tasks as a result of the NHS reforms and also a marked increase in teaching and training roles with the introduction of the Calman Training Scheme.

Third, there has been even greater difficulty in recruiting suitable individuals into University posts in anaesthesia. Whilst academic posts have always been financially less attractive than NHS posts because of the lack of comparability in removal expenses and reduced opportunities for private practice, these differences have been magnified by the progressive drive towards private health insurance encouraged by the Conservative Government and consequent expansion of private practice into areas of the United Kingdom which 15 years ago exhibited very little in the way of financial attractions for part-time consultants.

Fourth, funding for anaesthetic research, particularly of the non-commercially sponsored variety, has become particularly difficult in the last few years as a result of the research assessment exercise and most recently the implementation of the Culyer Report (1.).

It is notable that during the last Research Assessment Exercise conducted by the HEFC for the period 1993-1996, all permanent University members of staff were required to submit a brief curriculum vitae, together with four publications which the author would regard as representing his or her highest quality research output. Although it was stated initially that impact factors of journals would not be taken into account, ultimately during the final formal assessment and grading of each individual's four research papers, the impact factors of journals were used in order to score "quality". table 2 shown on page 8 shows the impact factors for journals of anaesthesia for a 10 year period. The impact factors of journals represents a very imprecise way of assessing the 'quality' of a journal. The impact factor for a particular year is calculated by assessing within the preceding 2-year period all papers cited from that journal as a fraction of the total number of papers published within that year. The problem with this analysis is that it represents a very small 'snap-shot' of the total output published by a journal and it is biased markedly by factors altering citation rates; these include a tendency to self-citation or citation of institutions, the bias towards basic science compared with clinical journals, the clear bias for North American journals to cite North American literature and because of the size of North America this produces a massive bias towards US literature. Many other problems with impact factors have been described in detail by Seglen in a recent article (3.).

It is particularly interesting that there is little correlation between the citation rate of some articles and their perceived value by a panel of experts. Part of the reason for this is that older articles tend not to be cited as frequently as more recent articles and therefore citation of seminal articles in the literature tends to decline with time.

Recently, the author was asked to describe five seminal papers published in British Journal of Anaesthesia in the last 50 years. The collective views of the Board of the British Journal of Anaesthesia were sought and with a 70% response rate, the following five papers gathered the greatest degree of support for the description of "seminal":

1. The performance of circle systems by Professor Mapleson published in 1954.

2. The first description of the laryngeal mask by Dr. Brain, published in 1983.

3. A description of two cases of poisoning by contamination of nitrous oxide with higher oxides of nitrogenic anaesthesia by Professor J. Clutton-Brock

4. A description of the first use of dantrolene to treat malignant hyperthermia by Professor G.G. Harrison.

5. Quantitative assessment of residual antidepolarising neuromuscular block using train of four stimulation by Drs. Ali and Utting and Professor T. Cecil-Gray published in 1971.

Clearly it is necessary for the passage of adequate time before papers are worthy of the title "seminal". It is interesting that these excellent papers are rarely cited in contemporary literature and therefore have no bearing on impact factors. In common with editors, it is clear that a prolonged period of maturation is required to differentiate between good and mundane papers published in the literature

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2. Beatty P.C.W., Campbell I.T. Paying the paper - calling the time? *Anaesthesia 1994; 49: 931-932.*

3. Seglen P.O. Why the impact factors of journals should not be used for evaluating research. *British Medical Journal 1997; 314: 498-502*

Impact Factors for Anaesthetic Journals

Acta Anaesthesiologica	1.043	0.874	0.956	0.868	0.881	0.771	0.974	0.944	1.054	0.939	1.015
Anaesthesia	1.469	1.484	2.054	1.618	1.621	1.945	2.045	2.058	2.006	1.813	1.640
Anaesthesia-Intensive Care	0.983	0.719	0.508	0.901	0.506	0.678	0.798	0.817	1.072	0.996	0.948
Anaesthesia and Analgesia	2.345	2.310	1.986	1.910	2.189	1.802	2.242	2.155	2.304	2.166	2.346
Anesthesiology	3.600	3.803	3.004	3.215	3.291	2.954	2.986	3.437	4.442	4.711	4.900
British Journal of Anaesthesia	2.316	2.276	2.049	1.958	1.695	1.395	1.724	1.996	2.283	2.298	2.025
Canadian Journal of Anaesthesia	1.062	1.004	0.883	1.033	0.982	1.265	1.183	1.227	1.221	1.433	1.316
European Journal of Anaesthesiology	-	-	-	0.663	0.456	0.868	0.592	0.462	0.628	0.567	0.446

Table 2

Overseas Visitors

Dr.Elina Bouline
Dr.Viatcheslav Bouline

This year our Society sponsored Drs.Elina and Viatcheslav Bouline form the Botkin Hospital, Moscow, on a visit to Scotland. As in the past, I have published their letter of thanks in an unedited form. The gratitude they felt, clearly comes across. We should acknowledge the efforts made by members of our Society, some named, ours not, to once again make this venture a success.

Dear Colleagues,

We were invited by the Scottish Society of Anaesthetists as an Overseas Fellows in April-May 1997. It was great honour for us to be your guests. Your country have strong traditions in anaesthesia, so it was very interesting and useful for us to visit your hospitals, to compare organisation of work, equipment, monitoring and techniques and management of anaesthesia for different types of surgery. We need in your experience especially now because of changes in Russia last years. New drugs and equipment made outside Russia became available for our hospitals. Whole system of Russian National Health Service changes in attempt tobecome more effective. So we thank your Society for possibility to be your guests and to visit a number of hospitals in Edinburgh, Glasgow and Dundee.

First week of our visit we were in Edinburgh and started our programme in Royal Infirmary of Edinburgh from meeting Prof.Alistair Spence in Operation Theatre. Then Dr.Iain Davidson explained for us specific considerations of cardioanaesthesia. Next day we visited Simpson Memorial Maternity Pavilion where Dr.Anne McCrae met us and gave possibility to visit labour room and ward, showed anaesthetic management forelective and emergency caesarean sections. Dr.David Ray demonstrated different techniques of anaesthesia for trauma and orthopaedic patients in Trauma Operation Theatre. Next day we spent with Dr.Ian Armstrong in Operation Theatre and Intensive Care Unit. It seems to us that the organisation of work in your ICU is perfect. The biggest difference in the work of anaesthetists in Russia and Scotland is the quality of your ICU. Our programme in Edinburgh included a day in Western General Hospital where Dr.Carmichael and his colleagues showed anaesthesia for neurosurgery, anaesthetic facilities in MRI department and ICU. It was very useful for us. Next day in Royal Infirmary Dr.Ellis Imon explain for us details of pain control in High Dependancy Unit. Then we attended ATLS seminar in Lister Hall. The Royal Hospital for Sick Children in Edinburgh, which we visited next day is a school of humanism.

During our visit to Glasgow we had a wide programme arranged by Dr.Elizabeth McGrady. We visited the Royal Maternity Hospital and introduced with organisation of work and saw spinal and epidural techniques of anaesthesia for caesarean section. These techniques are very popular in Russia. We attended the meeting of anaesthetists in the Royal Infirmary of Glasgow with interesting reports about news in cardiology. Next day we spent in ICU and Dr.Kinsella showed us new monitoring systems and introduced us with treatment of ICU patients. It was very interesting for us to visit with Dr.Patrick Plastic Surgery Operation Theatre. He detailed for us anaesthetic management of patients for this type of surgery. Last day in Glasgow ww were in the Cardiac Theatre of Royal Infirmary. Dr.Reeve and his colleagues explained all what was interesting for us and showed other operation theatre.

It was great honour for us to be guests of your Annual General Meeting in Peebles. Memories about this fantastic meeting will stay in our minds for many years.

Next three days we were in Dundee where Dr.Neil Mackenzie and his colleagues from Ninewells and other

hospitals showed to us anaesthesia in neurosurgery, trauma, plastic surgery, ENT surgery and ICU and answer all our questions

We finished our programme in London where we visited with Prof.Alastair Spence the Royal College of Anaesthetists and attended the scientific meeting on Current Concepts.

Every hospital which we visited have something special but there is one thing in all hospitals - high level of anaesthetic management and intensive care and kind atmosphere around every patient.

Every Russian know Scotland as a romantic country with ancient culture, as a land which gave birth to the world Sir Walter Scott, Robert Louis Stevenson. It is imposible to find in Russia schoolboy who did not read their novels. Poems of Robert Burns are very popular in our country. We are happy that we were in your country and saw fantastic Edinburgh, impressive Glasgow, hospitable Dundee, unforgettable atmosphere of small towns as Peebles and St.Andrews.

Thanks to Dr.Iain Davidson for the trip to the Borders with beautiful countryside and old Dryburgh and Melrose abbeys, Sir Walter Scott's Abbotsford. Thanks to Dr.Alan Macdonald for possibility to see Stirling Castle and Wallace Monument. Thanks to Dr.Neil Mackenzie for the trip to the centre of Scotland, to Loch Rannoch and Loch Tummel and to Glamis Castle. Thanks to Dr.Stuart McGovan for trip to St.Andrews. Thanks to Dr.John Thorburn who meets us in Glasgow,

Thanks to the families of Prof.Spence, Dr.Davidson, Dr.McGrady, Dr.Mackenzie, Dr.Partick, Dr.McGocvan for their hospitality. Our special thanks to Prof.Alastair Spence for organisation of our visit. Thanks to Dr.Colin Sinclair, Dr.David Scott for arrangements of our visit.

We hope that our visit will further to closer relationships Scottish Society of Anaesthetists and Fereration of Anaesthesiologists and Reanimatologists (Russia) and will encourage personal contacts between our peoples. Thanks to all members of Scottish Society of Anaesthetists.

With best wishes,

Yours sincerely,

Dr.Elena Bouline and Dr.Viatcheslav Bouline,
Department of Anaesthesiology,
Botkin Hospital,
Moscow,
Russia.

The John Gillies Memorial Lectureship.

On this the 20th Anniversary of the inauguration of the John Gillies Memorial Lecture, it is perhaps timely to review the origins of this lectureship.

John Gillies was the President of our Society from 1950-1951. He was Edinburgh born and bred, went to school at Broughton and entered Edinburgh University as a medical student in 1913. With the outbreak of the First World War, he served in the Highland Light Infantry from 1914 to 1918, spending 7 months as a prisoner of war at Mainz. Having earned the Military Cross, he returned to complete his medical student studies in Edinburgh, graduating in 1923. The next 8 years were spent in general practice in the West Riding of Yorkshire, when in 1932 he returned to Edinburgh and took up anaesthesia as a specialty. He held a position at the Royal Hospital for Sick Children, Edinburgh and for the princely sum of about £1/week undertook 3 nights a week as the 'on-call Anaesthetist' for the Royal Infirmary of Edinburgh. In a move that perhaps heralds the start of our sub-specialisation, he then spent some 25 years working with (or referred to at that time as 'for') Professor Sir John Fraser, the Professor of Clinical Surgery at the Royal Infirmary of Edinburgh and his successor, Professor Sir James Learmonth. A formidable task by all accounts! He held the position of the Simpson Reader in Anaesthetics at the Royal Infirmary and retired in 1966.

John Gillies was a trend setter and a leader for our specialty in all senses. With Dr.H.W.C.Griffiths he pioneered induced hypotension to control bleeding using total spinal anaesthesia (a critical incident in today's exams!) and although not a prolific contributor to the published literature of the time - in the words of one of his contemporaries - when he did publish it was important and you listened. He was elected President of the Association in October 1947 and perhaps most importantly was a founder member of the Faculty of Anaesthetists within the Royal College of Surgeons of England, which held its first meeting on 24th March 1948. He was elected Vice-Dean of the Faculty in 1956 and served for two years with a further 6 months between 1959 and 1960. This laid the groundwork for others to build upon in establishing our Royal College of Anaesthetists.

His daughter, Deidre May Macleod Gilllies followed him into anaesthesia and indeed was also a member of our Society. Graduating from Edinburgh University, she trained in Anaesthesia under Dr.Harold Griffiths,and moved to McGill University in Montreal, obtaining her Diploma in 1957. In 1973 she was appointed Anaesthetist-in-Chief at the Queen Elizabeth Hospital in Montreal where she remained until her retirement in 1993. Sadly, after a long illness, she died on the 2nd of May 1997.

As was common practise, John Gillies commissioned a portrait of himself. The artist he chose was an up and coming Scot, Stanley Cursiter (1887-1976), who subsequently went on to become keeper of the National Gallery of Scotland and the King's Painter and Limmer in Scotland. A signed photograph of this portrait, faded through time, has hung for many years in the Anaesthetic Department of the Royal Infirmary of Edinburgh and has been reproduced as best. The

original remained in the family until very recently, when following Dierdre Gillies's death, the family donated the portrait to Edinburgh University. It is currently hanging within the Talbot Rice Gallery of Edinburgh University and it is hoped, in due time, will adorn the new University of Edinburgh Medical School.

John Gillies died on the 18th of July 1976. In 1978 the Gillies family generously endowed a lectureship to the Society in memory of him. As the then president, Alistair Masson put it "Your Society thought it fitting that the lecture, which is to be delivered annually by an anaesthetist of distinction on a topic promoting safe clinical anaesthesia should conclude the proceedings of the Scientific Meeting.". This prompted the move that year of the Scientific Meeting from May to November and its extension from a half to a full day. In keeping with that statement, the Gillies Memorial Lecture still concludes our Annual Scientific Meeting.

The inaugural John Gillies Memorial Lecture was delivered on the 17th of November 1978 in Dundee by the then Professor Gordon Robson C.B.E., who has since received a Knighthood.

It is fitting that the 20th John Gillies Memorial Lecture should also be delivered in Dundee on the 21st November 1997, by an Anaesthetist of equal distinction, Dr.John Thorburn.

Sir Gordon Robson and Dr.John Thorburn mark two points in a theme which, as a Society, we have clearly set out for this lectureship 'safe clinical anaesthesia'. Between them are a further 18 Anaesthetists of equal distinction, and many others will follow. In time, perhaps, we may consider broadening the scope of this lectureship to take into account the other areas of medicine in which our specialty is involved and the many other Anaesthetists of distinction working in these fields.

John Gillies Memorial Lecturers 1978 - 1997

Year	*Lecturer*	*Topic*	*Venue*
1978	Gordon Robson	Physiological Trespass	Dundee
1979	Dr.G Jackson Rees		Edinburgh
1980	Dr.O.P.Dinnick	"In sommo securitas" - A sermon in safety	Glasgow
1981	Prof.J.D.Robertson	Anaesthesia for Royalty	Aberdeen
1982	Prof.T.C.Gray	Safety - a Mirage?	Edinburgh
1983	Prof.J.P.Payne	The quality of care	Glasgow
1984	Dr.H.W.C.Griffiths	ClinicalAnaesthesia, retrospective and prospective	Dundee
1985	Prof.M.K.Sykes	Safety in Anaesthesia - simplicity v. surveillance	Edinburgh
1986	Dr.A.H.B.Masson	Inter Pares	Glasgow
1987	Dr.J.I.M.Lawson	Relaxation - A historical perspective	Aberdeen
1988	Dr.D.B.Scott	A little knowledge.....	Edinburgh
1989	Dr.W.R.Macrae	40 years on	Glasgow
1990	Prof.A.A.Spence	Whither Breathing	Dundee
1991	Dr.I.A.Davidson	Trespass with care	Edinburgh
1992	Dr.W.D.A.Smith	An open mind.	Bath
1993	Dr.M.E.Tunstall	Isonox	
1994	Dr.J.A.W.Wildsmith	Neurological Trespass	Aberdeen
1995	Dr.G.Kenny	Technology - friend or foe	Edinburgh
1996	Prof.W.C.Bowman	Pharmacological manipulation of neuromuscular transmission	Glasgow
1997	Dr.J.Thorburn	Epidural Analgesia - From here to here	Dundee

Epidural Analgesia - from here to here

In the situation that I find myself in it behoves me to talk about something that I know a little about, this immediately ties me down to talking about pain relief in labour. As an observer with 25 years experience of dealing with labouring women, my observations must be entirely objective. Pain relief in labour is a fascinating area of interest, which has been and will continue to be an area of controversy. Few aspects of the practice of pain relief can have aroused so much heat in a vulnerable population and here we have the first hint of confusion, I talk about a population, but are they patients or clients or an animal species undergoing a physiological process, the reproduction of the species. Unlike other branches of medicine or anaesthesia, those involved in the care of pregnant mothers are divided over the needs of the mother and how they may best be met. On the one hand are the professionals, medical and midwifery staff and on the other, those supporters of natural childbirth, AIMS and the NCT for example. The natural childbirth supporters are convinced that having a baby is a normal event which has been turned into an abnormal one by the medicalisation of the process. Many of the books on childbirth are written by such supporters and are critical of the medical profession, particularly anaesthetists and the provision of epidural analgesia. Home deliveries are supported and are advocated as being as safe as a hospital delivery, and much more satisfying for the mother.

In an effort to make childbirth more approachable and friendly, the number of visits to the antenatal classes are being reduced, with more of the care being taken directly by midwives and GPs. This must be applauded, but it does move the patients further away from the kindly intentions of the anaesthetist. Natural childbirth supporters play down the value of epidural analgesia and exaggerate and emphasise its disadvantages. These arguments sow seeds of doubt in the mother, and are scarcely reassuring. They can result in unreasonable demands and unrealistic expectations by the mother.

Who is responsible for the care of the mother and her delivery? Currently, the vast majority are undertaken by midwives and the word midwifery has been removed from the lexicon of obstetricians. Maternal care is not now seamless as a them and us situation appears to be developing between midwives and obstetricians. Many obstetric units have mothers who undergo midwife led care only, but 30+ % of them require transfer to an consultant led care, and in some units this division of labour is jealously guarded.

Delivery by the home care team in hospital that would ensure that the mother knows her carer (as the jargon has it) and is confident in what is offered, is an ideal, but difficult to achieve with a limited number of staff available.

What on earth has this preamble to do with pain relief? We must appreciate that the anaesthetists input to educating the mother about pain relief is small and reducing. Although mothers are given a large bundle of hospital information during the course of her pregnancy there is usually in it some information about pain relief although not extensive. Perhaps it is just as well, but mothers do not have much idea or interest in the pain of child birth until the big day. They are given an opportunity to write a birth plan, and many of these plans state that they do not wish to have an epidural. The mothers view of labour derives from friends and relatives experiences and midwives advice. The prime function of the mother's carers and advisers is to exude reassurance and comfort, this is, of course, laudable, but

reality can get lost at this point.

The other side to this coin are the effects of the NCT, AIMS and to an extent the Cumberlege Report, though the latter was intended to consider low risk pregnancies. Baroness Cumberlege's Committee was skewed in favour of natural childbirth enthusiasts. Less than 2% of mothers get advice on labour from the NCT the Maternity Alliance and AIMS, yet they were all represented on the Committee but there was only one anaesthetist. Obstetricians were equally poorly represented. A quarterly magazine is now produced "Changing Childbirth Update". Sheila Kitzinger is one of the (elderly) doyens of "woman centred" care. Her text is heavily slanted towards implied criticisms of obstetricians and anaesthetists and the techniques used in an attempt to make life more tolerable for the suffering mother. I am strongly in favour of minimum intervention, but it is difficult to strike the correct balance, every woman is different. The mother must be better informed, but it is becoming more difficult to do this as her care is removed from staff who are familiar with current techniques. This is not an insuperable problem, but it is not adequately aired. The mother must be made aware that her choices are being limited if facilities are not available. What disappoints me most is given the long hard struggle to attempt to make obstetric anaesthesia and analgesia safer and more effective we are now overlooked in the provision of maternity services. The reason put forward is that much of "changing childbirth" is related to "low risk pregnancies," but that is a retrospective statement.

Another feature worthy of consideration is that many of the traditional and established methods of pain relief have not undergone critical scrutiny. Earlier evidence would suggest that as a method of pain relief, they are relatively ineffective. Henry McQuade asserts, following a meta-analysis of the relevant literature that there are no properly conducted studies which conclusively demonstrate any benefit from the use of TENS in labour.

A 1974 study by Holdcroft and Morgan concluded that pethidine, entonox and pudendal block were relatively ineffective at relieving the pain of labour and delivery. A high incidence of vomiting and undesirable sedation was noted. A recent paper by Olofsson in 1996 has highlighted this failure. This was a more sophisticated study using a randomised and blinded technique and showed that pain scores were not reduced following the administration of morphine and pethidine for pain relief in labour. This article was the subject of a Lancet editorial by Felicity Reynolds who considered that women were being misinformed and were being offered fools gold. She was of the opinion that the time was ripe for a double blind placebo controlled study of pain relief in labour. This would be considered ethical now. I believe the converse to be true, that to give a drug to a mother in labour which has been shown to be ineffective is unethical. Yet, despite the demonstrable inadequacies of these traditional methods, they are still in widespread use.

The pain of labour is widely believed to be among the most severe experienced, but there is a spectrum of severity and it has been estimated that 2% of women will experience virtually painless childbirth. Of course the definition of pain varies.

If we turn to epidural analgesia. This form of pain relief was introduced by Hingson in the early 1940s to quieten the unholy noised emitting from the labour rooms in a San Francisco hospital which was disturbing the nights repose of wounded servicemen in an adjacent ward. Initially equipment was ad hoc, clumsy and crude but it was the start. In the post war period in the UK, epidural analgesia was provided by Geoffrey Steel at Queen Charlottes on an occasional basis, but a 24 hour 7 day a week service was not established in the UK until 1964, when the one at the QMH was the first to be established by Donald Moir. Analgesia using 0.5% bupivacaine with intermittent top ups of 5 to 10 ml quickly became the standard technique following the insertion of the block.

Many studies published at this time testified to the efficacy of the technique, complete pain relief being obtained in up to 76% of patients in labour and slightly less at delivery. It was believed that one possible reason for the less than perfect analgesia was the effect of the block wearing off, and the delay before and effective top up was given might be very painful. In this exercise, top ups were given every hour on the hour, whether the mother needed it or not, and sure enough analgesia was improved, complete pain relief being achieved in 87% of patients, but so was the cost to the mother, post partum catheterisation rose to 24% and forceps delivery 62%, but analgesia was superb. Some mothers complained that they were unable to move and found this inconvenient. The executor of this study was Alan Aitkenhead with John Wyles who had to get up at hourly intervals, quite a sacrifice, as this was before the time of midwife top ups. The price of this excellent analgesia was otherwise acceptable, but it did not become standard practice.

Over the course of the next few years a number of issues were explored. The complication rate became clearer, the frequency of dural puncture and its consequences. In 1982 Morgan and Bulpitt published a survey of a 1000 mothers who had and epidural. In this study, maternal satisfaction was considered as was pain scores, and it was clear that epidural offered the greatest pain relief, but it was not unalloyed pain relief. There was a high incidence of instrumental delivery and mothers who were delivered by forceps were less likely to be satisfied with their delivery.

The next period was spent introducing various modifications to the epidural technique in an effort to

reduce the frequency of undesirable side effects and to improve the analgesia. I would like to consider each one in a little detail separately;

1. Vertebral opioids
2. Changing the volume and concentration of the solution
3. Mode of delivery, Patient Controlled Epidural Analgesia (PCEA), infusion or top up
4. The walking epidural

Vertebral opioids

Opioids opened a new door. Yaksh had demonstrated in a unique and elegant study that opioid receptors existed in the spinal cord. I went to the trouble of looking up his original paper, there were actually two seminal papers, one in which the receptors had been identified with morphine labelled radioisotopes. These areas which were identified were no longer seen in sections taken from rats who had been treated in the same way but with the addition of naloxone. The next step was to inject morphine into the CSF in varying doses and stimulate the rat's tail. A log dose response curve was obtained. Those two papers were published in the late seventies and this was followed by a rash of papers in which various opioid substances were injected into the CSF. It was a period of uncontrolled investigations which in I suspect, unwitting subjects which properly defied logic.

However, it was perhaps believed that the Holy Grail had been discovered, the predicted advantages were clear:

1. Analgesia without motor loss
2. No autonomic block
3. No central effects
4. Large number of opioids available
5. Specific antidotes also available

The results, however, were disappointing and conflicting. Epidural administration appears not to be so effective with large doses of the water soluble opioids like morphine and pethidine, but some adjuvant effects have been described following the administration of dilute concentrations of local anaesthetic solutions, usually bupivacaine and low concentrations of fentanyl.

Sufentanil, available in the USA, and bupivacaine mixtures have been widely used. Some synergism appears to occur. In general, the opioid mixture is just as effective as the use of a slightly more concentrated solution of bupivacaine on its own, but has a more rapid onset. If the frequency and severity of muscle weakness is reduced and analgesia is as effective, will this alter the frequency of instrumental deliveries? What is the added cost to maternal welfare, if any? No studies which I am aware of demonstrates a reduction in motor block associated with a reduction in the frequency of instrumental delivery. Although there have been many publications on the effects of opioids, many with confusing and conflicting results, I do not think the answers to these two questions are known with certainty, despite almost 20 years of experience. Many of the studies demonstrate in the opioid containing group less severe muscle weakness, but not an associated reduction in instrumental deliveries. Serious side effects have been reported following the use of extradural opioids, with respiratory depression, (with several cases of respiratory arrest being recorded) the one which has been most frequently described and feared and with good reason. Large dose of opioids given to the mother are quickly transferred to the fetus, and respiratory depression has been reported in the neonate.

Minor complications are also a frequent feature, and both the incidence and severity varies from drug to drug. Itch is particularly frequent with epidural and spinal morphine, vomiting is also common. These side effects can be reversed with naloxone, but, to be most effective it should be given by infusion as its action is shorter than that of morphine, this does further complicates the technique.

Varying the volume and concentration of the local anaesthetic.

Juggling with varying concentrations of bupivacaine and the addition of epinephrine, efficacy varied, but so did the chosen populations, from van Steenberge's magic using very dilute solutions, 0.125% bupivacaine, which produced effective pain relief, but it would appear that Belgian women have effective labours of short duration, much shorter than the primigravida at the QMH, 91% lasting <6 h as compared with 11.1 h in the QMH. Attempts to introduce this concentration in the UK were unsatisfactory. The following data are from a study that was undertaken in the QMH in 1982, in which differing volumes and concentrations were examined. This was randomised, but not blinded, and the top ups were given by the midwives. The principle findings here were that the 0.5% solution was easily the most effective, but it also had the highest frequency of instrumental delivery, >50%. When we looked more closely at the figures, the greater majority of women found the 0.25% solution helpful, and we interpreted this as adequately helpful, rightly or wrongly and from that time we used 0.25% bupivacaine as our standard solution.

We also looked at a group of mothers who had delivered during the study period, but who had not received and epidural. We found that the majority had been in labour and delivered in a shorter period than the duration of labour at the time when the mothers were being given their epidural, 4.8 vs 6.3 h. It suited our prejudices to conclude that mothers who had longer and more difficult labours were more likely to receive epidural analgesia. What effect the epidural had on the course of labour and delivery could not be answered by any of those studies.

Mode of delivery of epidural solution

We studied the use of midwife top ups, continuous infusions and PCEA, using a standard solution of 0.25% for PCEA, 7.5 mg per top up for the PCEA and the standard 3 and 7 ml divided dose technique which

has been our standard midwife top up regimen. The mother was asked about her analgesia at hourly intervals. This would, it was hoped avoid missing painful periods and be a more accurate reflection of the pain that she experienced. We also attempted to disentangle the mother's 'satisfaction', from her pain. The two are not synonymous, but it is difficult to interpret the differences. Some mothers, particularly in the PCEA group were in pain but were satisfied. They replied on questioning, that they know that were in labour and felt that they were participating, but that although painful, it was not intolerable, and they were happy with the pain that they experienced.

The results of the comparison of the three techniques were broadly similar, i.e. a similar proportion of patients experienced complete relief of pain, with no painful periods, 25%, and 12% experiencing some painful periods. But there were group differences. For example, the PCEA had an inertia in the system, as initially, the midwife would suggest to the patient that she took more top ups, but the lock out period can negate that to an extent, and if labour had progressed rather quickly, then the PCEA was unable 'to catch up'. There were therefore, more painful periods in this group. Some mothers took to this type of administration with great ease, others did not, they waited too long and lost analgesia at a time when the pain was increasing.

Similarly there were criticisms of the infusion. This was a very rigid system, and if analgesia was not complete, the midwives would immediately request a top up be given by the anaesthetist as there was no other step to take. This resulted in a significantly greater number of anaesthetist interventions and the administration of a greater amount of bupivacaine (30% more), but no real advantage in analgesia. There was a suggestion that motor block was more profound in this group. Although no one was instructed not to change the infusion rate, no one did so. It did not appear to us that the infusion rate could be tailored to the patient.
The midwives were most familiar with their administration of the top ups, and this has proved to be a flexible and effective system, but no better than the others. Some midwives rather objected to PCEA as they felt they were slightly losing control. All in all, the results were gratifyingly similar.

Walking epidural
What then does the combined spinal/epidural have to offer, the so-called and erroneously labelled walking epidural. It is not an epidural but a subarachnoid block. This was introduced by Barbara Morgan at Queen Charlottes Hospital. The technique consists of injecting a small dose of bupivacaine (2.5 mg) intrathecally combined with 25 mg of fentanyl, an epidural catheter is also inserted and if analgesia is inadequate or wears off a top dose of local anaesthetic and fentanyl may be given extradurally. This technique was introduced to clinical practice in Queen Charlottes Hospital and became very popular given to several thousand patients, although it was never critically examined or satisfactorily tested against standard techniques. However, Collis and Aveling published a study in which the walking epidural was assessed with a standard epidural. There were 191 patients in this study. Some complications were more common in the opioid group, but the incidence of pruritis was the major difference. Despite the difference in the frequency and severity of motor block reported in the paper, the frequency of instrumental delivery was the same in the two groups.

It was reported that the patients preferred the walking epidural, but the reasons were not clear.
What then are the side effects and benefits of epidural analgesia 30 years down the line? The following is an audit of our (fairly) recent experiences at the QMH.

Patient satisfaction was complete in 56.4% and good in 22.4% so this is not as good as were achieving in 1974. If primigravid patients alone are considered, the efficacy of the epidural improves, in my view this is because labour takes longer in prims, and the mother has more time to develop good analgesia. With multiparas, the mother can outrun the analgesia. Almost 2% of patients complained that they were given a useless epidural. A high incidence of forceps delivery accompanies epidural analgesia 47.3%. Reasons for poor analgesia are as follows. Inserting an epidural is not always easy, and 17% of mothers required two attempts before successful puncture was achieved. A dural puncture occurred in 1.2%. In our experience this figure varies, depending on our sample size of between 0.5 and 1%, we seem to go through periods which are better than others. The remainder was the result of an unblocked segment or the development of a unilateral block.

A postal survey was also conducted, and 54% of the respondents claimed that they had not wished to have an epidural in labour and 12% blamed the epidural for their forceps delivery.

What are the major complications? Scott and Hibbard reviewed retrospectively a large number of epidurals and concluded that the risk of a serious but non-fatal side effect e.g. cardiac arrest, acute neuropathy, was 1/5000 blocks. A daunting figure.

The other aspect of the effects of epidural block is the effect on the caesarean rate, strangely it is this effect which has resulted in so much angst in the USA, although there has been a concern on the effect on instrumental deliveries. When I was in Canada there was a popular belief that a forceps delivery was the optimum mode of delivery for two reasons, one the obstetrician could control the descent of the head and it let him return to his office in the shortest period of time. But Thorp has aroused fury in the USA with his paper which looked at the incidence of caesarean section following the administration of an epidural block. This

was a randomised controlled study of epidural vs non epidural pain relief and was the subject of an editorial in Anesthesiology which provoked an enormous critical response. The figures are unequivocal though perhaps not correct and I will return to them briefly but have been supported by the work of Gambling.

A further serious complications associated with an instrumental delivery of a large baby, and not, I must emphasise, epidural analgesia, is a third degree rectal tear which occurs on 0.6% of the population. The prognosis in this complication is poor and after a year and despite its recognition and treatment 47% of mothers remain incontinent of faeces. Similarly urinary problems have been ascribed to instrumental delivery, although long term damage is thought not to result.

Where do we stand with epidural analgesia today? It is an effective method of pain control in obstetrics, but it is not as effective as the higher concentrations used 20 years ago were. It is complicated to perform, requires skill and care. The introduction of epidural and intrathecal opioids has been disappointing, although they are in widespread use. Some have advocated that patients who have received epidural opioids should be nursed in high dependency units, with adequate staffing and proper respiratory monitoring. If you do not, and an associated incident occurs with serious consequences to the mother, it would proved difficult to defend.

Although my talk has been on the subject of epidural analgesia in labour, I have been very restrained in my quoted sources, using the studies referred to support my arguments rather than what might be considered a balanced view. Meta-analysis is the current tool, and the Cochrane data base is a widely respected source of this type of information. The Cochrane data base is surprisingly quiet on the subject of pain relief in labour. As far as I could determine, there exists only one meta-analysis. This study claimed that the risk of caesarean section is increased by about 10% if a mother has an epidural. The authors of the Cochrane database were critical of this study. There is no meta-analysis of pain relief in labour, perhaps because the quality of many of the studies is too poor. Many studies have inadequate statistical power and obstetric anaesthesia is no different, particularly if some of the events are relatively rare.

In conclusion I believe that we are little better off now than 30 years ago. We know that epidural analgesia provides the best analgesia, but it is expensive, complicated, and not without risk. The effect on labour and mode of delivery is not known with confidence. A great deal has been written on the subject, but it has served to shed light rather than illuminate. Ideally a large randomised controlled study is required in which mothers agreed to be allocated to a form of analgesia, i.m. opioids, epidural, intrathecal opioids and combined local anaesthetic agents as first choice. It would be difficult to undertake and perform, and would be multicentered, but the results would be invaluable. As the care becomes 'woman centred' and less contact is made with the obstetric unit, a study like this becomes more difficult.

Finally, an epidural service is expensive and resources are becoming more stretched, the availability of epidural analgesia is not likely to grow. Although epidural analgesia has serious drawbacks, it would be wrong not to pay tribute to the excellent analgesia which it offers and the general anaesthetic sparing effect, which can only benefit the mother and her baby. Mothers electing to be delivered in small homely units must realise that they are being denied choice.

'I'm sure I have it' here somewhere'

'The President presents Dr. John Thorburn with the Bowl'

Release of Immunoreactive-galanin in the Spinal Cord of the Neuropathic Rat

1. INTRODUCTION

In the clinical setting it is well known that a peripheral nerve injury can result in the development of a neuropathic pain state, with signs of allodynia, hyperalgesia and spontaneous pain, that may respond poorly to conventional treatment [16]. It is difficult to develop rational treatment strategies until the underlying changes in spinal cord processing are better understood. Recently developed animal models [5,13,28,49] have shown that a remarkable series of changes occur in the dorsal root ganglia and the spinal cord in response to peripheral nerve injury. There is evidence of altered responses in the spinal cord to peripheral stimuli [11], as well as behavioural evidence of enhanced perception of peripheral stimuli [4,49]. There are striking alterations in neuropeptide synthesis in the cell bodies of the dorsal root ganglia and in neuropeptide levels in the dorsal horn of the spinal cord [39,63,76]. Synthesis of galanin, neuropeptide Y and vasoactive intestinal peptide (VIP) are markedly up-regulated, while substance P, calcitonin gene-related peptide (CGRP) and somatostatin are significantly down-regulated [26,40].

Galanin is a 29 amino acid peptide first isolated from porcine intestine [60], and subsequently found to be extensively distributed in the central nervous system. In the spinal cord, highest levels of immunoreactive-galanin (ir-galanin) have been found in the superficial dorsal horn, with moderate amounts around the central canal, the dorsolateral funiculus and the ventral horn [7,31,80]. The origin of this ir-galanin was mainly from intrinsic neurons of the spinal cord, with a small amount arising from the termination of small primary afferent neurons [1,23,29,63,79,80]. Although there did appear to be a variable level of galanin in small primary afferent fibres, its function was unclear, as peripheral innocuous and noxious stimulation did not result in central galanin release in either cat or rat [19,37].

Galanin synthesis is significantly increased after nerve injury, with large increases in galanin mRNA in small to medium sized cells of the dorsal root ganglia [18,39,78]. There is a corresponding increase in ir-galanin in the dorsal horn, with the largest increase being in laminae I- III in the superficial dorsal horn [27,77]. The newly synthesised galanin is found in small to medium sized primary afferent neurones that are thought to be involved in nociceptive transmission. This may therefore indicate an important role for galanin in spinal processing after peripheral nerve injury.

The functional significance of galanin and its subsequent effects on neural transmission is not yet clear. Its extensive presence in areas of the spinal cord concerned with the transmission and processing of nociceptive information implies that it may have an important role in this system, particularly after nerve injury. Functional studies of galanin have yielded equivocal results, with evidence of both inhibitory [46,66,67] and excitatory [12,32] effects. However, after a peripheral nerve injury, the inhibitory actions of galanin may be increased. After axotomy, galanin antagonists potentiated facilitation of the flexor reflex by a conditioning stimulus much more strongly than in uninjured rats [65]. There was also a change in its interaction with other peptides as galanin inhibited facilitation of an ankle flexor reflex by VIP only after nerve injury [68,73]. It has been postulated that galanin may be part of an endogenous analgesic system that becomes important after peripheral nerve injury. As such it may offer alternative therapeutic strategies in the treatment of neuropathic pain. An understanding of the factors causing galanin release might lead to improved therapeutic strategies in the treatment of neuropathic pain syndromes.The aim of this study was to examine the effects of a peripheral nerve injury on the central release patterns of galanin, both under basal conditions and during peripheral nerve stimulation.

2. METHODS

2.1 Animal Preparation

2.1.1 Preparation of Neuropathic Model

A peripheral neuropathy was induced in 36 male Wistar rats ((200-320g), Charles River Ltd, UK) using the technique described by Bennett and Xie, 1988 [5]. Each rat was anaesthetised with 40-50mg/kg of intraperitoneal sodium pentobarbitone, and maintained with supplemental halothane in oxygen, as required. Using full aseptic technique, the sciatic nerve was exposed by an incision at mid thigh level and four 4/0 chromic gut sutures placed loosely around the sciatic nerve. The tissue layers were then closed with 4/0 vicryl, using a subcuticular stitch for the skin. All animals were housed in solid floor cages in small groups, with free access to food and water, under controlled conditions of light and temperature. The guidelines for the care of experimental animals of the International Association for the Study of Pain were followed carefully [81]. Regular monitoring of the development of evidence of neuropathic pain behaviour was carried out in all animals post-operatively.

2.1.2 Behavioural assessment

A combination of tests was used:

1. Rats were first observed for the characteristic changes seen in this model [2,5]. They were placed on a cage lid and allowed to acclimatise, unrestrained.
2. Von Frey Hairs: These were used to assess the degree of mechanical allodynia by establishing the lowest threshold to which the animal withdraws its hindpaw. Von Frey hairs are a graded series of nylon monofilaments, which allow a quantitative assessment of sensitivity to touch. Starting with a very fine von Frey hair, the plantar aspect of each paw was touched lightly up to five times on each paw or until the animal had exhibited a withdrawal response. If no withdrawal occurred the next hair up in the series was used to establish the lowest threshold at which paw withdrawal occurred. The highest value used was 5.88 (a force of 46.54g) as after this the filament lifted the paw from the cage floor. The mean values, for each foot, obtained at each time point were compered using Students paired t test.
3. Pin Prick: This was used as a measure of mechanical hyperalgesia. The length of time for which each hindpaw was withdrawn above the cage floor was measured. An arbitrary value of 0.5 sec was assigned to the transient and immediate response seen in normal animals, and with the paw contralateral to the nerve injury. The mean values, for each foot, obtained at each time point were compared using Students paired t test.

2.1.3 Histological assessment

After the terminal release experiments had been carried out, the sciatic nerves were excised from each rat, fixed in formalin and stained for myelin using solochrome cyanin [43]. This was to ensure that the histological changes expected with this model had occurred.

2.2 Antibody Microprobe Technique

2.2.1 Antibody microprobe preparation [15]

The principles of the antibody microprobe technique are illustrated in Fig. 1.The antibody microprobes used in this study were fine glass micropipettes coated with galanin antiserum, with a tip diameter of approximately 10μ, thus allowing relatively atraumatic study of ir-galanin release patterns *in vivo*. A series of processes were used in order to immobilise the galanin antibody to the outer surfaces of the probes. Firstly, the glass micropipettes were heat sealed and incubated in a 10% solution of aminopropyltriethoxysilane in toluene. This coated the outer surface of each microprobe with a fine granular siloxane polymer layer. Protein A (Sigma) was immobilised on the outer surface by glutaraldehyde coupling. Protein A is a staphylococcal derived protein bearing free amino groups that bind to the Fc region of some subclasses of IgG antibodies, thus allowing the use of a polyclonal antiserum. The protein A bound immunoglobulins present in the galanin antiserum (rat, Peninsula Labs), so that the microprobes had immobilised antibodies to galanin on their outer surfaces. The microprobe technique detects bound endogenous galanin by the failure of binding of exogenous radiolabelled galanin as detected on an autoradiographic image developed from each microprobe.

Principles of the Antibody Microprobe Technique

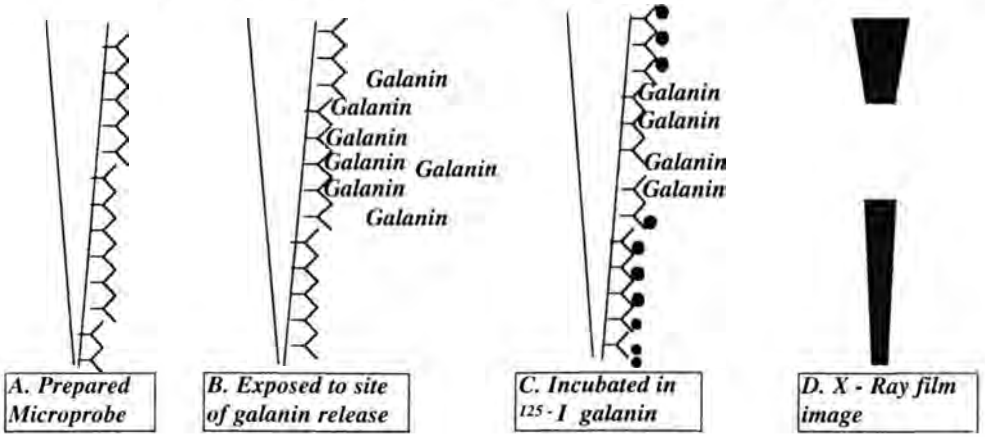

Fig 1.

Fig 1.

A. The Antibody microprobe technique uses a series of treatments to the glass microprobes that are described in detail in the text. This results in immobilisation of an excess of galanin antibody (**Y**) on the outer surface of the microprobes. For diagrammatic clarity only one side of the microprobe is shown as having a coating of galanin antibody.

B. The coated microprobes are inserted into the spinal cord to a known depth and endogenous galanin binds to the specific and sensitive galanin antibody, at localised sites of release in the spinal cord.

C. The microprobes are then removed from the cord, washed and then incubated in radiolabelled ^{125}-I galanin (•) at 4°C for 24 hours. This allows binding of the radiolabelled galanin to any unoccupied antibody sites on the microprobes.

D. After washing the microprobe tips are placed on a card and an autoradiographic image of each microprobe is obtained by exposure for 8-10 days on X-ray monoemulsion film. Areas where endogenous galanin has bound are represented by deficits in binding of radiolabelled galanin, and thus areas of lower density. This can be analysed using an image analysis system and then related to the actual site of the release within the spinal cord.

2.2.2 *In vitro* tests

Prior to commencing *in vivo* work, *in vitro* assays were carried out to determine the specificity and sensitivity for the immobilised galanin antibody. The specificity of the immobilised galanin antibody was checked by measuring the degree of inhibition of ^{125}-I galanin binding by related peptides, using a gamma counter. The probes were incubated in 10^{-5} M solutions of a range of peptides for 30 minutes at 37(C then washed in ice cold PBS-Tween, followed by 24 incubation in ^{125}-I galanin for 24 hours at 5(C. The antibody used was C-terminus directed and therefore showed approximately 40% cross reactivity with porcine galanin, both from the manufacturer's data and from my own *in vitro* testing. The other peptides that were used are found in the dorsal horn, and no evidence of cross reactivity was found between the galanin antiserum and neuropeptide Y, VIP and substance P. Sensitivity tests were used to measure the degree of suppression of binding by a range of concentrations of galanin. Greater than 90% suppression was found with 10^{-5} M galanin and approximately 40% suppression was found with 10^{-9} M galanin.

2.3 Galanin Release Experiments

At 10-14 days after ligature placement, rats with behavioural evidence of neuropathic pain were used to study galanin release in the lumbar spinal cord. Six normal rats were also used as controls and to confirm previous findings on galanin release in this laboratory [19].

In urethane-anaesthetized (1.25g/kg, intraperitoneal) rats, cannulae were inserted into a carotid artery and an external jugular vein, to allow continuous monitoring of blood pressure and provide the necessary maintenance fluid.

The depth of anaesthesia was monitored regularly and further injections of urethane given as required. Body temperature was monitored with a rectal probe and maintained between 36-38(C, using a controlled heating system. Humidified supplemental oxygen was given via the T-piece inserted into the trachea, which aided unobstructed breathing. In those animals where paralysis was required (during stimulation of C fibres), vecuronium (1mg/kg) provided neuromuscular blockade and a Harvard Animal Ventilator was used to ventilate at a rate of approximately 80 breaths/minute to maintain end tidal CO2 (Datex Capnograph) at ~5%.

The animal was supported, stabilised in a metal frame and a laminectomy was performed from T12 to L2 to expose the lumbar spinal segments, L2 - L6. A solid agar pool was formed at the site of the laminectomy into which a window over the exposed spinal segments was made and the dura removed. Sterile, warmed Ringer's solution was used to continuously irrigate the exposed cord. The ligated sciatic nerve was dissected out, covered in warmed paraffin oil and mounted on platinum stimulating electrodes, above the site of the ligatures. This was used initially to determine optimal sites for microprobe insertion in the spinal cord. This was done by stimulating at low frequency and threshold and measuring the resultant field potential with a silver ball electrode placed at a variety of rostrocaudal positions on the spinal cord. Microprobes were then inserted into the area where the largest field potential was measured.

In those experiments where the effects of electrical stimulation of the injured nerve were being studied, two different stimulus parameters were studied - 1. Stimulation of large myelinated fibres at 2 Hz, 3 x threshold, 0.1 ms pulse duration; 2 Additional stimulation of small myelinated and unmyelinated fibres at 2 Hz, 50 x threshold, 0.1 ms pulse duration.

Using a micromanipulator, microprobes bearing immobilised antibodies to galanin were inserted to a depth of 2.25 mm, 500μ from the midline, into the dorsal spinal cord, thus placing the tip in the lower ventral horn. Microprobes were inserted into both right and left sides of the cord. The probes were left in place for fifteen minutes to allow adequate binding of any extracellular galanin present in the cord. Following removal from the spinal cord, microprobes were washed in cold phosphate buffered saline containing 0.1% Tween and then incubated for 24 hours at 4 C in a solution of radiolabelled ^{125}-I galanin. After this the microprobes were washed again and then the distal portions placed in an X-ray film cassette with a sheet of monoemulsion film (Kodak NMC) for eight to ten days to

produce an individual autoradiographic image for each microprobe. To calibrate microprobe depth accurately within the cord, pontamine sky blue was ejected ionophoretically in the cord at a known depth and the exact position of the dye spot measured in post mortem sections of the spinal cord.

2.4 Analysis of Microprobes [17]

A computerised image analysis system was used to analyse the autoradiographic images obtained from microprobes inserted into the spinal cord. *In vitro* microprobe images for each experiment were also analysed as controls. Binding of endogenous galanin results in deficits in binding of ^{125}I-labelled galanin (illustrated in Fig 1.D) that was detected as a decrease in optical density by the analysis system. An Imaging Technology PC Vision Plus frame grabber board operating in a PC computer was used. A charged coupled device camera scanned each image, starting at the tip and, following background subtractions, a transverse integration of optical density on a scale of 0-255 was performed for each microprobe at 10μ intervals. As this is beyond the biological resolution for the microprobe technique, averages of three successive integrations are taken to give a final resolution of 30μ [14]. For each microprobe, a plot of grey scale (i.e. total optical density) against depth of the probe in the spinal cord was obtained. Thus areas where endogenous galanin has bound to the microprobe are shown by areas of low optical density and thus a low value on the grey scale.

Using a sorting program, it was possible to compare the means of defined groups of microprobes, at 30μ intervals along the length of the probes. This was plotted as the means (+/- SEM) of the grey scale values at 30μ intervals for each group against the depth within the spinal cord. Each site on the probe was treated as being independent of other sites and thus comparisons between each site could be made. Statistical significance was assigned to each site using Student's unpaired t-test, and the *t* values thus obtained plotted against depth within the spinal cord.

3. RESULTS

3.1 Behavioural testing

3.1.1. The characteristic changes in gait and hindpaw position were apparent in all animals. A limp was evident with the paw held such that only the medial aspect touched the cage floor when walking. The foot was everted with the toes tightly ventroflexed, and there was evidence of abnormal grooming behaviour. Autotomy was rare, with only three rats showing evidence of gnawed claw tips, occurring in the first three days after ligature placement.
3.1.2. The paw withdrawal threshold to a series of von Frey hairs was determined for each foot as shown in Fig. 2A. Paired t-tests showed a significant difference ($p<0.001$) between right and left hindpaw withdrawal threshold from day three onwards. This peaked at day 7-8 and was maintained until the day of the release experiment at 10-14 days after loose nerve ligation.
3.1.3. The duration of paw withdrawal to pin prick was measured for each hindpaw, as shown in Fig. 2B. Student's paired t test at each time point showed a significant difference ($p<0.001$) between right and left hindpaws from day three onwards.

Thus, all the animals that were used in galanin release experiments had evidence of mechanical allodynia and hyperalgesia on the day of experiment, combined with the characteristic gait changes.

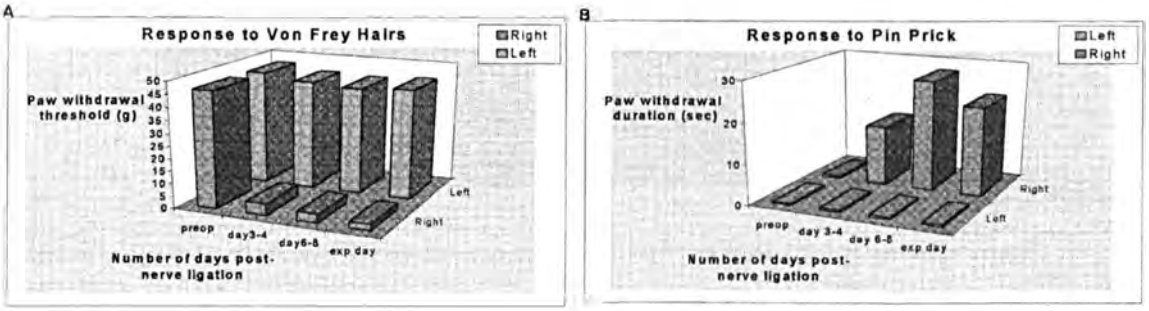

Fig. 2. Behavioural response of rats (n=36) before and after right sciatic nerve ligation. A. The mean paw withdrawal thresholds to von Frey hairs; and B. the mean paw withdrawal duration to pin prick at each time point is illustrated. A highly significant difference ($p<0.001$) between the right (nerve injured) and left hindpaw was found using Student's paired t test, from day three onwards for both behavioural measurements.

3.2 Histology

The expected changes as described by Munger and co-workers [38] were seen on light microscopy. Morphological studies of the ligatured sciatic nerve show that at around fourteen days post-ligature there is near complete loss of large myelinated fibres and a significant degeneration of small myelinated fibres distal to the ligature, with relative sparing proximal to the lesion [3,9,38]. This change was found in all the ligatured nerves examined, an example of which is shown in Fig. 3.

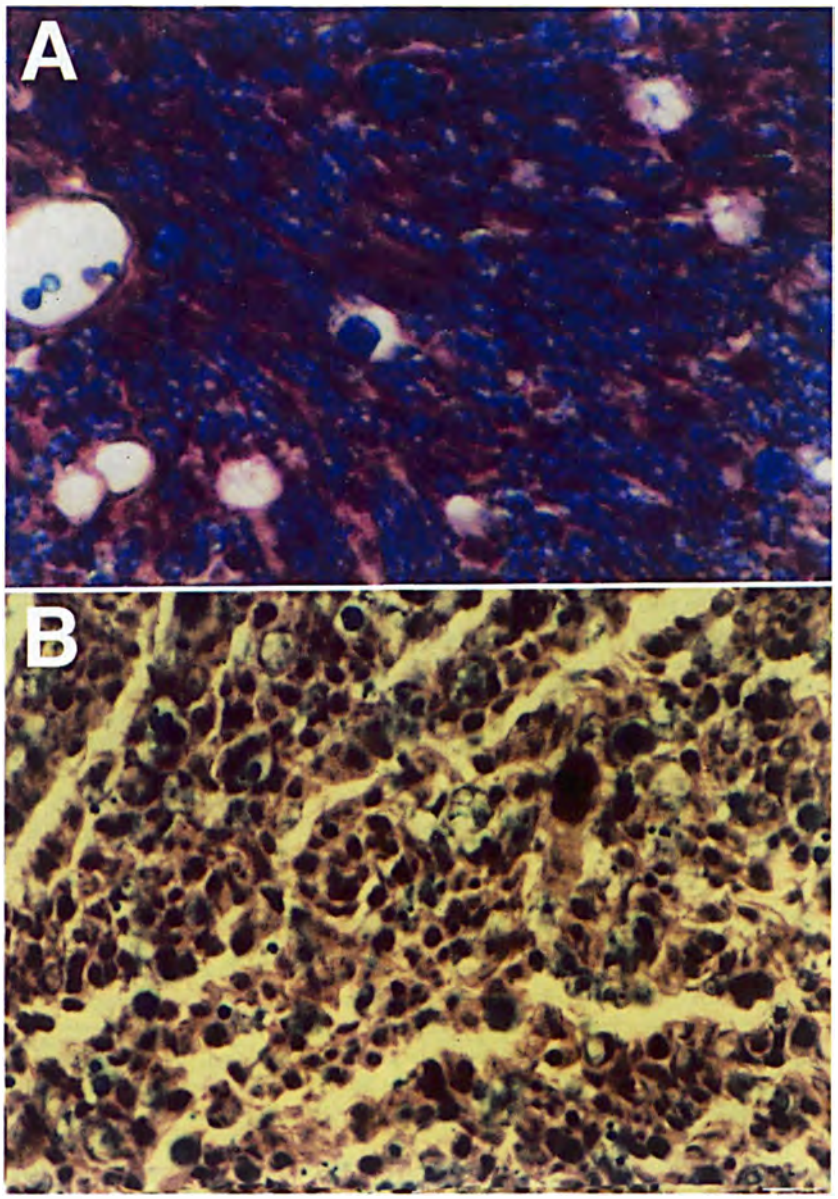

Fig.3
A. Transverse sections through sciatic nerve stained for myelin with solochrome cyanin. The myelin shows up as a deep purple colour.
B. Section through left (uninjured) sciatic nerve. The gross morphological appearance of the nerve is undisrupted, with extensive staining for myelin as would be expected in a mixed nerve of this type.
Section through right sciatic nerve twelve days after a chronic constriction injury had been induced using four loose ligatures of chromic gut. The section is taken distal to the nerve injury site, where the most marked degeneration has occurred. There is a major loss of myelinated fibres combined with disruption of the normal morphology and extensive intraneural oedema.

3.3 Release studies -

3.3.1 Microprobes inserted into the spinal cord of normal rats in the absence of peripheral stimulation:

A basal presence of galanin in the spinal cord could be inferred by using microprobes that had not been inserted into the central nervous system, but simply incubated in ^{125}I galanin as a standard indicating no endogenous galanin binding (*in vitro* microprobes). As there was no significant difference between the pattern of ir-galanin release between the right and left sides of the spinal cord, the analysis combined microprobes from both sides of the cord. Comparison of the mean image analysis of the *in vitro* microprobes (n=57) against the mean image analysis of microprobes inserted into the spinal cord in the absence of any stimulus (n=187) showed a basal presence of galanin bilaterally throughout the dorsal and ventral horns.

This result, illustrated in Fig. 4, confirmed previous work using this technique, which has shown an extensive basal presence [19,37]. Immunohistochemical studies indicate that, although there is a minor contribution from primary afferent fibres, the major source of this galanin is from intrinsic neurons [1,23,63,79,80]. Galanin release in normal rats has not been shown to be altered by any peripheral stimulus, indicating that the basal ir-galanin is probably mainly in neurons not of primary afferent origin [19].

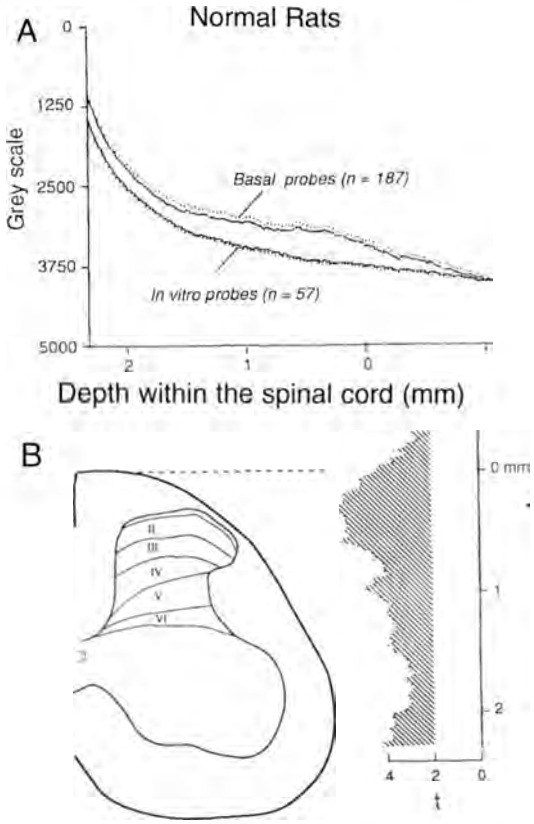

Fig. 4. Basal presence of ir-galanin in the spinal cord of normal rats.

A. The mean image analyses of two groups of microprobes are plotted with respect to length: the *in vitro* microprobe group have not been inserted into the cord, but the equivalent length to microprobes used *in vivo* has been analysed to allow comparison. The optical density is represented by the grey scale (y axis), with any decrease in optical density (as shown by an upward deflection) indicating endogenous galanin release at a specific area in the spinal cord. Each line is made up of the mean image analyses at 30μ intervals along the length of the microprobe. The dotted line adjacent to the solid line for each group is the standard error of these means (S.E.M.). The two groups are the mean image analysis (+/-S.E.M.) of the *in vitro* microprobes (n=57) and the mean image analysis (+/-S.E.M.) of microprobes inserted into the spinal cord for 15 minutes without any concurrent peripheral stimulus (n=187).

B. The right hand side of the diagram is a plot of the *t* statistics derived from comparison of the means at each analysis point in the mean image analysis shown in A. This is related to an outline of the spinal cord to give an indication of the sites of ir-galanin release. The hatched area is where there are significant differences ($p<0.05$).

3.3.2 Microprobes inserted into the spinal cord of neuropathic rats in the absence of peripheral stimulation:

a. The mean image analysis of microprobes (n=58) inserted into the spinal cord of normal rats and the mean image analysis of microprobes (n=50) inserted into the contralateral side of the spinal cord of neuropathicrats for 15 minutes without any concurrent peripheral stimulus did not appear to be significantly different. This indicated that there was no change in the ir-galanin release pattern obtained on the contralateral side ofthe cord to the nerve injury when compared to that found in normal animals. Thus, the initial extensive basal presence of ir-galanin seen in the spinal cord of normal rats was unchanged after nerve injury on the contralateral side of the cord. This is shown in Fig.5.

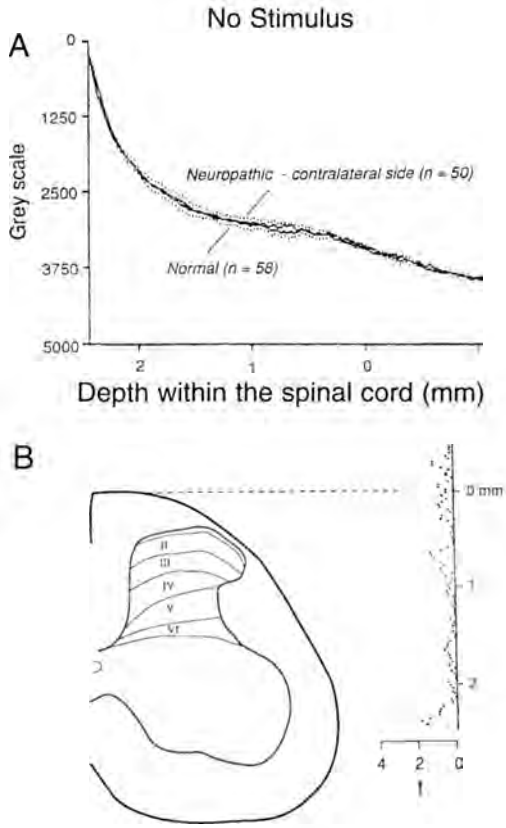

Fig. 5.Effects of a peripheral nerve lesion on basal ir-galanin release: comparison of microprobes inserted into the spinal cord of normal rats to microprobes inserted into the spinal cord contralateral to the side of nerve injury in neuropathic rats.
A. The mean image analysis (+/-S.E.M.) of microprobes (n=58) inserted into the spinal cord of normal rats and the mean image analysis (+/-S.E.M.) of microprobes (n=50) inserted into the contralateral side of the spinal cord of neuropathic rats for 15 minutes without any concurrent peripheral stimulus. The two groups are plotted with respect to depth in the spinal cord, with the cord surface being on the right hand side of the diagram.
B. The differences between the two groups of microprobes are shown as the t statistics relative to depth in the spinal cord. At no point within the spinal cord is there any significant difference between the two groups

b. The mean image analysis of microprobes inserted into the ipsilateral (n=109) and contralateral (n=101) sides of the spinal cord relative to the nerve injury were found to be significantly different. There was a new area of galanin release in the superficial dorsal horn on the side of the spinal cord ipsilateral to nerve injury (right), when compared to the release pattern found in normal rats, and in the side of the cord contralateral to the nerve injury, as shown in Fig. 6. This new zone of ir-galanin release was found in the absence of any active peripheral stimulus with a peak in the superficial dorsal horn where the small to medium sized primary afferent fibres are known to terminate. These are the primary afferent fibres that have been shown to start synthesising galanin after nerve injury [18,39,78].

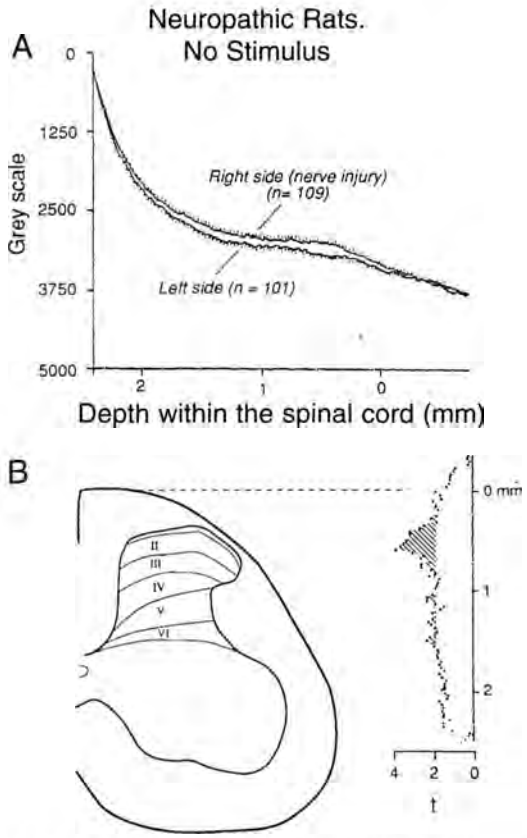

Fig. 6. Effects of a peripheral nerve lesion on basal ir-galanin release: comparison of microprobes inserted into the ipsilateral and contralateral side of the spinal cord of neuropathic rats.

A. Microprobes were inserted into the spinal cord of neuropathic rats for 15 minutes without any concurrent peripheral stimulus. The plot shows the mean image analysis (+/-S.E.M.) of microprobes inserted into the ipsilateral (n=109) and contralateral (n=101) sides of the spinal cord relative to the nerve injury, which is on the right side. The microprobes inserted on the ipsilateral side are displaced above those inserted into the contralateral side, indicating a new zone of ir-galanin release under basal conditions.

B. The differences between the ipsilateral and the contralateral groups of microprobes are shown as the *t* statistics relative to depth in the spinal cord. The hatched area shows where the new zone of ir-galanin release attains significance at the $p<0.05$ level. This peaks in the superficial dorsal horn.

3.3.3 Microprobes inserted into the spinal cord of neuropathic rats during peripheral nerve stimulation:

a. Electrical stimulation of large myelinated fibres (Aß fibres):

The mean image analysis of microprobes (n=18) inserted into the ipsilateral side of the spinal cord of neuropathic rats without any concurrent peripheral stimulus were compared to the mean image analysis of microprobes (n=10) inserted into same side of the spinal cord during 15 minutes of electrical stimulation sufficient to activate Aß fibres. No difference was found between the two groups. Thus, electrical stimulation of the injured nerve at a stimulus strength sufficient to activate mainly Aß fibres did not alter the release pattern of ir-galanin from that seen in the basal state in the spinal cord of neuropathic rats. In addition, no change was seen on the contralateral side of the cord during electrical stimulation of Aß fibres in the injured nerve. These results are not shown.

b. Electrical stimulation of large and small myelinated fibres (Aß and Aδ fibres) and unmyelinated fibres (C fibres):

The mean image analysis of microprobes (n=16) inserted into the ipsilateral side of the spinal cord of neuropathic rats without any concurrent peripheral stimulus were compared to the mean image analysis of microprobes (n=9) inserted into same side of the spinal cord during 15 minutes of electrical stimulation sufficient to activate Aß, Aδ and C fibres. After stimulation of both A and C fibres, there was a significant increase in ir-galanin release, as illustrated in Fig. 7. This peaked in the same area of the superficial dorsal horn as was seen with the initial increase in basal levels

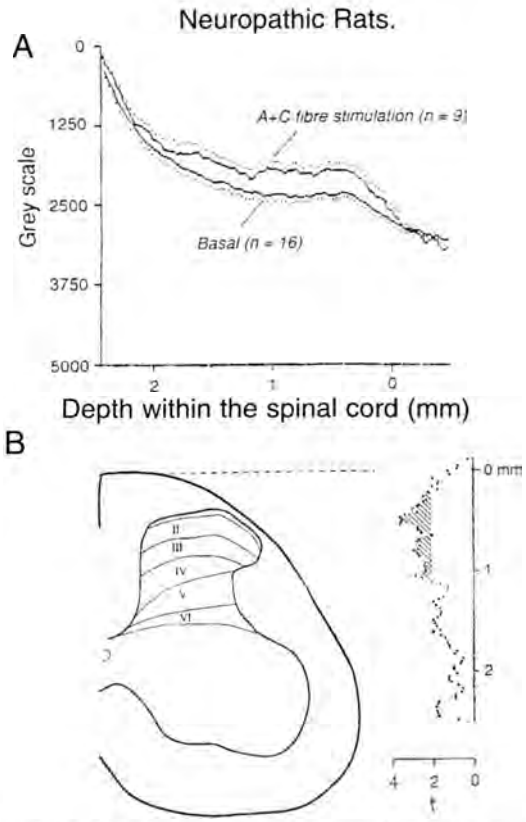

Fig. 7. Effects of electrical stimulation of the injured nerve at a stimulus strength sufficient to activate Aß Aδ and C fibres on ir-galanin release:
A. Microprobes were inserted into the spinal cord of neuropathic rats for 15 minutes before and during peripheral electrical nerve stimulation. The plot shows the mean image analysis (+/-S.E.M.) of microprobes inserted into the spinal cord before (n=16) and during (n=9) electrical stimulation of the injured nerve. The microprobes inserted during stimulation are displaced above those inserted before stimulation, indicating a new zone of ir-galanin release resulting from stimulation of Aδ and C fibres.
B. The differences between the basal and stimulus groups of microprobes are shown as the *t* statistics relative to depth in the spinal cord. The hatched area shows where the new zone of ir-galanin release attains significance at the $p<0.05$ level. This peaks in the superficial dorsal horn, in an area almost identical to that found with the increased basal release of ir-galanin in neuropathic compared to normal rats.

of ir-galanin in neuropathic rats. This increase in ir-galanin release occurred in the area where the small to medium sized primary afferent fibres terminate, providing strong evidence that the source of the new area of ir-galanin release in neuropathic rats is from primary afferent fibres. There was no significant change in the release pattern found on the contralateral side of the spinal cord during peripheral nerve stimulation. This result is not shown.

4. DISCUSSION

The significant findings from this study are:

1. In neuropathic rats there was evidence of a new site of ir-galanin release occurring in the absence of any active peripheral stimulus, peaking in the superficial dorsal horn ipsilateral to the nerve injury.

2. This new site of ir-galanin release was increased in the same area by electrical stimulation of the damaged nerve only at stimulus strengths sufficient to activate small myelinated and unmyelinated primary afferent fibres i.e. those fibres that are normally concerned with transmission of nociceptive information.

4.1 Source of ir-galanin

It is important to consider the source of this new area of spontaneous galanin release. Although it has been demonstrated both in this study and others [19], that there is extensive basal release of ir-galanin in normal rats, this is likely to be from intrinsic neurons of the spinal cord, as peripheral stimulation did not alter the pattern of release. The major difference in the neuropathic rats was that stimulation of high threshold neurones (A-delta and C fibres) resulted

in a significant increase of ir-galanin in the superficial dorsal horn. Other studies have shown dramatically increased galanin synthesis after nerve injury in the small to medium sized primary afferent cells that normally terminate in the superficial dorsal horn [39,40]. There is also immunohistochemical evidence that the increase in intra-axonal galanin levels in the dorsal horn after nerve injury arises from central transport from the cell bodies in the dorsal root ganglia [75]. There is thus accumulating evidence that primary afferent fibres are the major source of release of ir-galanin in neuropathic rats.

4.2 Factors causing galanin release

The spontaneous release of neuropeptides from primary afferent fibres is a very abnormal situation. Primary afferent fibres normally require a peripheral stimulus before a neurotransmitter is released. Recent work from this laboratory has also demonstrated spontaneous release of neuropeptide Y in the dorsal horn of nerve injured rats [35]. The synthesis of neuropeptide Y is also markedly up-regulated after nerve injury, although mainly in large primary afferent neurones [40,64,76] where it has been shown to be co-expressed in part with galanin [26]. Obviously there is potential for interactions between these newly synthesised and released compounds and resultant alterations in central processing.
There is an increasing amount of evidence that after nerve injury primary afferent neurones behave abnormally, with the generation of spontaneous ectopic activity both at the nerve injury site [36,59], and at cell bodies in the dorsal root ganglia [25,72]. Kajander and co-workers [24] recorded activity in primary afferent fibres after chronic constriction injury in rat sciatic nerve. They found that the majority of cells showing evidence of spontaneous activity were of the A-beta type. A high level of spontaneous activity has also been found in medium sized neurons [56]. Spontaneous activity in C fibres does not appear to increase significantly until about 10 days after nerve injury [24]. This high level of spontaneous activity from primary afferents is likely to contribute to changes in somatosensory processing that occur centrally in response to peripheral nerve injury. Tal and co-workers [59] have indeed found that there was a correlation between the amount of spontaneous activity in myelinated primary afferents and the development of thermal hyperalgesia.
As these afferents are firing spontaneously, it is possible that the central release of neuropeptides such as galanin is due to these abnormal impulses. A corollary to this is that ectopic impulse-evoked release of galanin and/or neuropeptide Y is related to the generation of spontaneous pain.

4.3 Factors causing changes in galanin synthesis

There is increasing evidence that neurotrophins, such as nerve growth factor (NGF), play a significant role not just during development, but also in the adult state in the maintenance of primary afferent phenotypes and regulation of transmitter synthesis [21]. When nerve injury occurs the normal regulatory mechanisms, such as the retrograde transport of these peripherally derived substances, are disrupted, which may contribute to the ensuing reorganisational changes within the spinal cord and the development of neuropathic pain.

Exogenous NGF has been shown to attenuate the alterations in peptide synthesis in dorsal root ganglia cells after axotomy. In particular, it has been shown to prevent the up-regulation of galanin and neuropeptide Y levels by about 50% [62]. Exogenous neurotrophin-3 has been shown to attenuate the alterations in neuropeptide Y levels that occur after axotomy [42]. An important finding is that exogenous NGF, administered at the nerve injury site abolished thermal hyperalgesia and mechanical allodynia [47].

Studies of transgenic mice have shown that NGF is essential for the development of certain subsets of neurones, as reviewed by Snider [53], although its importance after nerve injury requires further study [21]. Both NGF and trkA receptor (the high affinity NGF receptor) knockout mice have dramatically depleted populations of dorsal root ganglia neurons and absent sympathetic ganglia. It is mainly the small peptidergic neurons that are lost, and there are significant changes in behavioural tests indicating a decreased response to painful stimuli [52]. It may be therefore, that a lack of NGF and other neurotrophins, due to an interruption of retrograde transport, contribute to the neuropathic state, possibly by alterations in neuropeptide synthesis and release.

4.4 Other changes in the dorsal horn after nerve injury

It is important to put the changes seen with galanin after nerve injury in context with the many other changes occurring in the spinal cord. There is considerable evidence of reorganisational changes in the dorsal horn after nerve injury, with both degeneration and regeneration of central terminations and connections occurring 8. It has been suggested that the initial injury barrage from the nerve is excitotoxic, preferentially effecting inhibitory cells. Transsynaptic degeneration after nerve injury was increased in the superficial dorsal horn both by strychnine and bicuculline (glycine and gamma amino butyric acid (GABA) antagonists) [57,58]. There was also an associated exacerbation of thermal hyperalgesia when strychnine and bicuculline were given to nerve injured rats [74]. More recent evidence has shown almost complete loss of GABA-containing cells in laminae I- III of the dorsal horn after nerve

injury, with lesser decrease contralaterally [20]. Galanin has been shown to co-exist with GABA in the superficial dorsal horn in normal rats [51], a pattern of co-existence that must be altered after nerve injury. Alterations in the number of inhibitory neurones and the pattern of neurotransmitter co-existence may lead to impaired inhibitory function and central hyperexcitability after peripheral nerve injury.
There are regenerative as well as degenerative changes occurring in the spinal cord. An enhancement of central regeneration of primary afferent neurones has been found after axotomy and nerve crush [48]. A protein associated with regrowth, growth associated protien-43 (GAP-43), appears in primary afferent terminals the superficial dorsal horn after peripheral nerve injury with a distribution similar to that of small primary afferent terminals [6,10,69]. Other studies have found sprouting of large myelinated fibres from deeper in the dorsal horn to laminae I-II [34,70,71], with some evidence of synaptic contacts being formed in these superficial areas. Thus as well as spontaneous release of galanin in the superficial dorsal horn, there is anatomical evidence of altered primary afferent connections in the same area.

4.5 Functional significance of galanin changes

The functional role of galanin after nerve injury is not known, but there are several possibilities:
1. It may act as an endogenous analgesic substance. Although in the absence of nerve injury, galanin has shown variable functional effects it does seem to be predominantly inhibitory. In studies measuring a flexor reflex, intrathecal galanin had a biphasic effect with brief facilitation at very low doses (as is seen with morphine) and inhibition at higher doses [66]. It also potentiated the antinociceptive effect of morphine both on the flexor reflex and on the response to noxious thermal stimuli [66,67]. Specific galanin antagonists prevented this potentiation of the antinociceptive effect of morphine by galanin [46], strengthening the evidence for an inhibitory action of galanin.
This attenuation of analgesic effect was also seen using a highly selective (-agonist (DAMGO) as well as tramadol, and to a lesser extent with clonidine, desipramine and fenfluramine [50]. In rats, with sciatic nerve section, intrathecal galanin antagonists have been shown to increase the degree of autotomy normally seen after axotomy [61].

2. Galanin may be involved in the generation of spontaneous pain. Spontaneous release of galanin in an area where new synaptic contacts have been formed, and which is normally involved in pain processing could reflect an ongoing neural input resulting in pain. The functional effects of ectopic impulses on the central nervous system is not known, but it is likely that the continued peripheral input results in alterations in central processing. There appears to be a correlation between spontaneous firing and pain as demonstrated in both humans and animals 41,45.
Electrophysiological studies of the dorsal horn in animal models of nerve injury have shown an increase in spontaneous activity of dorsal horn neurons 33,54,55 as well as increased evoked activity11. However, it is first necessary to demonstrate that ectopic action potentials are causing galanin release and secondly that this galanin release directly results in pain. Galanin may actually be inhibiting ongoing activity 44, perhaps caused by other spontaneously released compounds such as neuropeptide Y 35.
3. An alternative explanation for the changes in peptide synthesis and release is that they play a role in neural remodelling, rather than acting as neurotransmitters. There is some evidence that peptides can have neurotrophic effects themselves. Both VIP and NPY have been shown to induce neurite outgrowth, but galanin did not have any neurotrophic effect 22,30.

5. Conclusions

My findings of increased central release of galanin in the superficial dorsal horn after a peripheral nerve injury suggest that it plays a greater role in spinal processing in this abnormal state. The spontaneous release of galanin, combined with increased release during stimulation of small diameter primary afferents, indicate that it may modulate the transmission of nociceptive information. Obviously, further study of factors causing alterations in neuropeptide synthesis and release, and of the functional actions of galanin are required. However, galanin, or a galanin analogue, may provide a potential new treatment for neuropathic pain syndromes, perhaps by utilising an endogenous analgesic system similar to that found with opioid peptides.

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Trainees Meeting, Stirling 1997 Dr.Pam Cupples

Trainees Meeting, Stirling 1997
Dr.Pam Cupples

After a year and a half helping to plan the new trainees' meeting I have been converted from a complete organising novice to one with a lot more insight into the time and effort taken to put a successful meeting together. The credit for this year's meeting must definitely go to Dr. Liz McGrady and Dr.Alan Macdonald who with a little help from myself ensured that this years meeting was one to remember!

Several late night meetings to discuss and arrange the speakers really paid off. The scientific component of the Stirling meeting was excellent and this was echoed by the many delegates who commented to me personally on how much they enjoyed the lectures. The program had lectures covering a broad spectrum of both clinical and scientific topics. All who attended found them informative and relevant regardless of whether they were sitting the Fellowship or not. Despite a very late call off by one of the speakers everything ran smoothly without any hitches.

The society had decided to post registration forms along with a cover letter to explain the new changes to the meeting, to all trainees in Scotland. This helped to publicise the fact that the Scottish Society now had a trainee council member who would be able to represent their views to council and voice any worries or concerns they may have. By contacting all the trainees we hoped to encourage as many as possible to attend ,regardless of whether they were members of the society or not. All the college tutors were contacted by Dr.Macdonald in writing to ask them if in their capacity as college tutors they could encourage as many of the trainees in their own department to attend and also to help with any potential problems with study leave.

Casting our net as widely as we could we hoped for a good turn out at the meeting and despite an initially slow response, which explains the grey hairs that I now have, things picked up nearer the date of the meeting. At final count one hundred delegates registered.

The day of the meeting eventually arrived, and once registration was over and everyone had enjoyed their lunch the meeting was officially opened by the president of the Scottish Society Dr.Ian Davidson, who welcomed all the delegates to the new Trainee's meeting.

Dr.Mark Worsley, from Stirling Royal Infirmary, chaired the first session which was opened by Mr.Brian Bingham, Consultant in ENT from the Victoria Infirmary who spoke on laser surgery of the upper airway. His lecture started by explaining the different types of lasers currently in use, both from their scientific basis and also their practical application. His lecture was informative and gave the mainly anaesthetic audience an insight into the problems our surgical colleagues deal with.

The anaesthetic view point of laser surgery was put forward in the next lecture given by Dr.Gordon Todd, Consultant Anaesthetist at the Western Infirmary, Glasgow. Being well known for his sense of humour, his cartoon slides of the funny but dangerous side of anaesthesia for laser surgery got them rolling in the aisles! These slides were part of a fact filled and educational half hour. Next up on the podium was Professor Gavin Kenny, a world renown speaker on the topic of Total Intravenous Anaesthesia. His lecture as expected was very impressive with computer graphics replacing the slides.

The first session was concluded by a lecture from Dr.Derek Paul, Consultant Anaesthetist at the Royal Infirmary, Glasgow. He spoke on the Clinical Practicalities of Thoracic Anaesthesia and One Lung Ventilation. His talk was divided into the pre, intra and post-op considerations of the thoracic patient. Dr.Paul gave an excellent lecture which was invaluable to any candidate sitting the Fellowship.

'The Sims Portex Grecian Temple'

Following a short break for refreshments and a chance to look at the Grecian style display of the Sims Portex stand, Dr.Davidson introduced the guest speaker for the Sims Portex lecture. We, as a society were very honoured that Professor Alan Aitkenhead - the man who co-wrote that well known book- was able to take time out of his busy and hectic schedule to come and speak at the trainee's meeting. His title for the Sims Portex lecture was - Anaesthetic Disasters: Handling the Aftermath.

'A busy man has to keep in touch! Prof. Alan Aitkenhead'

Professor Aitkenhead's lecture was a cautionary tale of how things can go horribly wrong during day to day anaesthetic practice. He explained the workings of the official bodies who investigate these disasters and how they apportion blame if any. Professor Aitkenhead recounted several cases which he had been involved with, which highlighted poor anaesthetic practice and poor judgment in a time of crisis. In one particular scenario the mistake of the anaesthetist concerned was recorded, for all to see, on the monitor's print out. As Professor Aitkenhead explained the written anaesthetic sheet was not documented in any detail and certainly did not document the events which occurred or the management taken by the anaesthetist in charge of the case.

Only later, by scruternising the print out were they able to work out the series of events which took place and which, unfortunately, ended in disaster.

Lessons can always be learnt, and taking the time to fill in the anaesthetic sheet as accurately as possible is time well spent. At the end of his very thought provoking lecture the president of the Scottish Society presented Professor Aitkenhead with an inscribed quaiche as a token of the Society's thanks.

'The President presents Prof.Aitkenhead with an inscribed quaiche'

The first session of the scientific meeting went very well with lots of questions being asked at the end of each lecture, so much so that as expected the lectures over-ran their time. This meant that it was a quick bus trip back to the Golden Lion Hotel to prepare for the night's festivities!

Despite the glorious weather of the week prior to the meeting the typical Scottish weather decided to rain, temporarily, on our parade. Things thankfully were not as bad as first expected and the rain stopped just in time for the party at Stirling Castle. The evenings festivities were to begin with a sparkling wine reception and while some guests chose the easy route to the castle via the arranged bus, the more energetic, including the heavily pregnant Dr.McGrady walked up the cobbled street to the castle, thankfully not inducing labour!

Anyone who has been to Stirling Castle and visited the splendid Queen Anne Gardens will know what a wonderful setting it is for a champagne reception. Unfortunately things were too wet underfoot due to the June rain so our contingency plan was put into action. Instead of the Queen Anne Gardens, everyone enjoyed the wine reception in the atmospheric surroundings of the King's Apartments. Stirling Council were kind enough to extend their hospitality to the Trainees of the Scottish Society by laying on the sparkling wine reception and I would like to take this opportunity to thank them again.

The provost of Stirling Mr. John Paterson made a short speech at the reception first to welcome the Scottish Society of Anaesthetists and secondly to enlighten those gathered to the illustrious history of Stirling and Stirling Castle (the bits that the film Braveheart left out!)

After everyone had had a few glasses of wine, the party was taken on a short tour of the castle. The many points of historic interest were pointed out by the castle tour guide from New Zealand who put the mainly Scottish party to shame with his knowledge of Scottish history. The tour finished at the Chapel Royal, where the main function was to be held.

Everyone enjoyed the delicious buffet which had been laid on. The ceilidh which was to follow was preceded by a short

'Ken Crow and Tom Logan of Sims Portex clearly dressed for a night out'

vote of thanks which was made by Dr.Macdonald. The ceilidh got off to a great start and the representatives from Sims Portex, which included the managing director were put through their paces on the dance floor. By the end of the night they had more than a few new Scottish dances to take back down south with them.

The dancing and socialising gathered momentum throughout the evening, however this proved too much for some of the guests who were found taking a cat nap. At midnight everyone left the castle for the warm confines of the Golden Lion's residents bar. The partying carried on into the wee small hours and this was to explain the many tired faces of those delegates who actually managed to make the 9am start the following morning!

Those who didn't make it missed the beginning of an excellent session based on Intensive Care. The names of the speak-

'Extras from Braveheart - spot the Treasurer'

ers made impressive reading. Two of the speakers had spent time as members of the Glasgow Western Infirmary base Shock Team and have numerous publications to their names. Dr. Saxon Ridley spoke about outcomes in Intensive Care and the difficulties in how to assess outcome objectively. His lecture was followed by Mr. Ian Taggart, a consultant in plastic surgery from Canniesburn Hospital in Glasgow. His lecture was about the management of burns and the lecture theatre sat in silence as Mr.Taggart showed his gruesome slides of burns victims which depicted the horrific damage produced. He pointed out the difference between the British and the United States approach to burns management. In America there are certain states with custom built hospitals to specifically look after patients with burns. These hospitals are exceptionally well staffed and contain state of the art equipment. They look after a maximum of four patients at any one time and help to save the lives of patients with burns of up to ninety percent of their total body surface area!

Mr. Taggart questioned how good a job we as doctors think we do for these patients. The highlighting of the psychological problems faced by these patients and the public's perception of there scares was a sobering thought indeed.

'a well earned break for three speakers and one organiser - Liz has lost a lot of weight since, all in one push - congratulations!'

The third speaker in this session was Dr.Colin Runcie who spoke on the transport of the critically ill. He explained the basis of a good transfer was comprised of certain basic elements, adequately trained medical staff, proper monitoring equipment and resuscitation of the patient prior to embarking on the transfer. This topic was of particular interest since the lack of intensive care beds had recently been highlighted ,both in the public as well as the medical domain. As a result of this shortage more transfers of critically ill patients will be happening and it is of the utmost importance that these transfers are carried out properly for the safety of the patient.

Mr.McGuigan who was to be the last speaker in this session unfortunately had to cancel at short notice, so we were unable to hear his lecture on thoracic trauma. Despite this the session filled it's time stimulating plenty of discussion during the coffee break which followed.

The penultimate session was chaired by Dr.Brian Cowan, Consultant Anaesthetist from the Victoria Infirmary in Glasgow. Dr Lesley Colvin who won the Registrar's Prize presented her paper entitled galanin changes in Neuropathic Pain. The paper which you will be able to read yourself in this year's Annals, explained the intricate experiments which Dr.Colvin has been caring out during the course of her research. The results of her research into galanin and how it reduces neuropathic pain in a rat model, is very promising and hopefully in the near future we will have a new treatment for this very painful condition.

All the trainees in the audience were looking forward to the next speaker Dr.John Currie who was to speak on training implications of the Calman report. The introduction of the recommendations made by Dr.Calman just over a year to the date of the Trainee's meeting has had a direct effect on all the delegates attending. It was of great interest to hear the opinions of Dr.Currie who is so closely involved in the implementation and maintenance of the new changes in the West of Scotland.

Dr.Currie's advice to all those wanting a career in anaesthesia was to obtain a national training number as a matter of urgency, as without this there was no chance of progressing in the specialty. He encouraged those in the audience without a number to apply for any specialist registrar position regardless of where in the country the post was. Sitting tight and hoping that positions would eventually become available in their region was folly. Dr.Currie also point out that we should all be planning straight away for our future careers and tailoring our training towards the type of Consultants post we would eventually like to be in.

All in all the last year has been a learning experience for everyone involved .It has not been short of teething problems which will hopefully be worked out in the near future. The main concern is for those senior house officers without a national training number in light of the likely reduction of SHO posts. As expected Dr.Currie's talk provoked one of the most voluable question and answer sessions which had to unfortunately be cut short due to the next speaker who was due to take the floor. We were lucky to have as the final speaker Dr.Harry Burns who explained the problems of contracting for Acute Health Care. He highlighted the complexity of the theory behind contracting for acute services and the difficulties of actually putting it all into practice.

The final session was opened by a discussion into the advances in management of paediatric pain by Dr.Neil Morton and this was followed by Dr.Suyin Tan's lecture on the advances which have been made into chronic pain management. Both speakers were excellent and gave a concise overview of really very extensive topics. The final speaker of the entire meeting was Dr.Geraldine O'Sullivan who spoke on the maternal sequelae of childbirth. She highlighted the fact that despite the general perception that mothers are safer than they ever were during childbirth this is not the case worlwide. This point was well and truly put across by the horrific statistics quoted by Dr.O'Sullivan regarding maternal morbidity and mortality in third world countries. The take home message was that things can always be improved even in our own country and that we should not rest on our laurels.

Dr.Ian Davidson brought the meeting to a close by thanking all the delegates who had attended and all the speakers for taking the time and effort to prepare such excellent lectures and for their help in making the meeting such a success.

The new style meeting is really a pilot study, and following the next meeting which will be held on the 11th and 12th of June 1998, the council of the Scottish Society of Anaesthetists will review its decision as to whether to continue with this style of meeting taking into account the views of the trainees, and other society members.

I would like to close by taking this opportunity to thank a few people. Firstly Mr.George Kennedy of Sims Portex for so generously sponsoring our meeting, and agreeing to do the same next year. The generosity of Sims Portex has been overwhelming and without it ,the Society could not have planned the trainees meeting on such a grand scale. Secondly Dr.Liz McGrady for organising such an excellent and well run meeting, and finally thanks to Dr. Alan Macdonald . Dr.Macdonald's foresight and imagination was instrumental in transforming his brilliant idea for a new trainees meeting into a reality.

Finally, on a personal note, I have thoroughly enjoyed my year as trainee representative and am looking forward to next year's meeting in June.

This year's Annual Scientific Meeting was held at the West Park Conference Centre in Dundee on Friday the 21st of November 1997. Neil Mackenzie, ably supported by his colleagues, put together a superb programme for us which attracted the usual high attendance.

The morning was devoted to Regional Anaesthesia, an area Dundee has long had a reputation for expertise in and further enhanced by Professor J.A.W.Wildsmith. It was a mixture consisting of basic science but mostly clinical application. John Bannister started the meeting off with a talk entitled *'Levobupivacaine, Molecule to man - the first five years'*. David Coventry and Gordon McLeod then followed, outlining current thinking on the axillary plexus block and benefits of thoracic epidural analgesia. The morning was rounded off by a talk by Matthew Checketts, Lecturer in Anaesthesia, Dundee University, entitled *'Central Neural Blockade in patients on anticoagulants - is there a problem?'*. With the increased awareness of thromboembolism, the SIGN guidelines on the prevention of post-operative pulmonary thromboembolism and the increasing use of drugs to alter coagulation on a short and longer term basis, this is clearly an area which concerns those of us who employ regional techniques and even those of us who 'stick needles into places with a high risk of bleeding'.

The afternoon session was chaired by Iain Gray, a past president of the Society, and he introduced talks by Professor J.Lambert, Dr.W.A.Macrae and Dr.A.J.Shearer.

Professor Jerry Lambert holds the chair in Pharmacology at the University of Dundee and is actively involved in collaborative projects with Professor Wildsmith and the Department of Anaesthesia through grants from the Association and the Royal College of Anaesthetists. With his knowledge of laboratory based models, he was able to give us an insight into a subject that we all take for granted - *'the big syringe puts the patient to sleep and a smidging from the small syringe can help in his talk entitled 'Molecular Mechanisms of Anaesthesia'*. Following this, Bill Macrae brought us back to the sharp end with a sensible and thought provoking view on our current drive to improvements in post-operative pain relief with his talk entitled *'Pain after Surgery - a long term problem'*. The afternoon session was rounded off by Alfie Shearer who gave a balanced view of the further development of anaesthetists in Intensive Care Medicine as they develop and improve vital procedures with his talk *'Percutaneous Tracheostomy - here to stay?'*.

As is the tradition of our Society, the Annual Scientific Meeting was closed by the Gillies Memorial Lecture given this year by Dr.John Thorburn which he entitled *'Epidural Analgesia - From here to here'*. A fuller account of this is given elsewhere in this copy of the Annals.

'Neil MacKenzie - it all went well. Perhaps we do need a new tie.'

The success of this year's meeting was in no small part due to the expertise of the speakers and the manner in which they were able to convey this to the audience. However, the success of any meeting is dependent upon the organising committee and their ability to bring the right people together at the right time, with all that entails. The hospitality was everything you could expect of Dundee, lacking only two small ingredients, for which Neil can be excused - marmalade and a copy of the *'Beano'*.

SIMPSON SESQUICENTENARY

Dedication of the Simpson Plaque: From left to right; Dr.Kerr (RCPE), Dr.W.Nimmo (RCPE), Prof.J.Hunter(University of Edinburgh),Prof.D.Lundberg (European Academy of Anaestheia), Prof.D.Webb (British Pharmacology Society), Prof.A.Calder (Univ.of Edin.),Prof.A.A.Spence (Univ.of Edin), Rev D.Robertson, Prof.J.Cash (RCPE), Prof.L.Strunin (RCA), Prof.Steyn (RCSE), Dr.S.Willatts (RCA), Mrs.M.McGregor (Deputy Convenor of Edinburgh Council), Dr.J.Scrimgeour (Edinburgh Obstetrical Society), Dr.I.A.Davidson (Scottish Society of Anaesthetists), Dr.N.Finlayson (RCPE) (and an unknown lady whose hat we can just see!).

The University of Edinburgh held a conference 4th to 7th September this year to mark the 150th anniversary of Sir James Young Simpson's discovery of the anaesthetic effects of chloroform. Three days were devoted to a scientific programme which included symposia on Simulators in Training, Pain, Intensive Care in Obstetrics, Frontiers of Anaesthetic Pharmacology, Prions and Disease, and a plenary programme in the McEwan Hall, on the 6th September, in which six lecturers, including two Fellows of the Royal Society, considered 'Medicine in the Millennium'. On the first day, the programme included the Royal College of Anaesthetists Gillies Professorship Lecture by Dr.Gordon Drummond.

At a reception at the Royal Museum of Scotland, Chamber Street, a video entitled 'The James Young Simpson Legacy' (sponsored by SIMS Portex, produced by Edinburgh University Departments and Edinburgh Films, with a commentary by Robert Hardy) had its first public showing, to acclaim.

On the 5th of September a drinks reception was held in the National Gallery of Scotland and the following evening there were banquets in the magnificent Upper Library of Old College and in the Hall of the Royal College of Surgeons of Edinburgh, with the entire company meeting at the Royal Museum for post dinner drinks and splendid music by the Joyful Company of Singers who included Walter Nimmo's 'Chloroform' in their repertoire.

In spite of these revelries, nearly 300 turned up at 9.15 on Sunday morning to the Assembly Hall on the Mound for two memorable lectures on Simpson and his Times, by Mrs. Myrtle Simpson, author and broadcaster, and Dr.A.H.B.Masson, a past president of the Scottish Society. After coffee the company moved to St.Giles Cathedral where a plaque commemorating Simpson and his chloroform discovery was unveiled. The plaque, dramatic because of its red lettering against a white marble background, s the work of Cardozo Studios. It was dedicated by the Reverend David Robertson and subscribed by the Scottish Society of Anaesthetists, the Edinburgh Obstetrical Society and the Royal College of Physicians of Edinburgh. The proceeding concluded with a buffet lunch in the Great Hall of the Royal College of Physicians.

Although there are many memorials to Simpson in the University and throughout the City of Edinburgh, until now there has been no memorial in St.Giles. The Very Reverend Dr.Gilleasbuig Macmillan has pointed out to us that there are very few doctors remembered in St.Giles, although there is a handsome memorial to Elsie Inglis. The absence of Simpson's name may be connected with the fact that he was one of the leaders of the breakaway so-called Free Church. At the time of the Disruption, the Free Church accounted for more than half the citizens of Edinburgh. They built what is now New College on the Mound as their headquarters, the Assembly Hall being an integral part of that development.

Professor Alastair A.Spence CBE.

News from the Regions

The 'Thistle' has again been gathering the news from the regions In taking the unusual step of naming sources, the editor accepts that any comments made are not directly attributable to the source, that the source may not even have been aware of making them and certainly accepts no responsibility for the accuracy!

Aberdeen

This last year has seen the retiral of two long serving consultants, George Robertson in January and Brian Kennedy in October. We wish them both a happy and long retirement.

It has also seen six of our senior registrars attain consultant posts. Three have been appointed in Aberdeen: Steve Stott (with an ITU interest), Ruth Stephenson (with an interest in hyperbarric medicine) and Chris Trotter (*with an interest in Anaesthesia we presume - thistle.*). David Ball is learning to enjoy haggis as he moves to 'Burns country' taking up a post in Dumfries, Donald Thomas has taken a post in Stracathro, and Jonathan Richards has been appointed to a position in Falkirk (*prone or supine not specified - thistle*) and will take up post early in the New Year. We wish them all well.

We still have an acute shortage of ITU beds, but are awaiting the outcome of a report into the need for an increase in ITU beds and staffing commissioned by the Grampian Health Board.

David Noble has become Advisor in Intensive Care and Kathleen Ferguson has succeeded him as College Tutor.

On the social front, the annual Anaesthetic Midsummer Charity Ball was another resounding success, and is now one of the high spots in the social calendar, with tickets selling out within days. Our thanks to Chris Trotter and his team, and we hope that he will continue to organise this event.

Gordon Byres

Dumfries and Galloway

We are particularly pleased to welcome three new consultants to the department - David Ball from Aberdeen, James Palmer from Manchester and Vince Perkin from Cardiff. Presently we are shortlisting for a 4th post with an excellent response - a little different to a few years back when the pendulum was at the other end of its swing. We are of course not complaining - as if we ever did!

Hugh Brewster has taken over the reins (or is it the whip?) of clinical director. Ron Meek has found time away from running the chronic pain service to play an essential role in the organisation of what is now a well run assessment unit for day case surgery. On the 8

Terry Nunn

Ninewells Hospital, Dundee

Anaesthesia in Dundee continues to flourish under the clinical directorship of Iain Gray. One new appointment was made at consultant level with Lesley Duncan being promoted from senior registrar. Intensive care, with Farquhar Hamilton as consultant in administrative charge, has rejoined Anaesthesia from Critical Care in a directorate re-organisation. Alf Shearer has been appointed as local advisor in intensive care medicine. John Colvin has completed his time as College Tutor and Willie McClymont has assumed this responsibility. John will continue as Programme Director of the School of Anaesthesia. The role of RA continues to be held by Neil Mackenzie who was organiser in chief of the excellent Annual Scientific Meeting of the Scottish Society in November. On a wider front, Tony Wildsmith was elected to Council of the Royal College of Anaesthetists from March 1997.

The academic component of the Department has continued to prosper during 1997, and has even occupied the same offices for nearly the whole year (*management oversight - thistle*)! However, another move is in prospect because the new block that will hold the University Department is under construction at the time of writing. On the staffing front, Jonathan Bannister, Graeme McLeod and Fergus Millar have taken up Senior Lecturer sessions, and Catriona Connolly spent the year in the Astra sponsored Clinical Research Fellowship. Matthew Checketts continued as lecturer (ably deputed for by Mary Rose when he rotated to Intensive Care) and Susan Rae completed her tenure of the Association of Anaesthetists Research Fellowship.

The Department has been closely involved in the development of the Scottish Anaesthesia Simulator Centre at Stirling, and the year ended on a particularly high note with news of a grant from the Scottish Office for a collaborative study (with Nursing in Dundee and Psychology in St. Andrews) on Quality of Life after Intensive Care.

Progress continues towards the transfer of acute services from Dundee Royal Infirmary to Ninewells. The first phase of building is due for completion in December 1997. This will be required to allow a phased transfer of services, with full transfer due for completion in October/November 1998.

Eddie Wilson

Stracathro

In November, after years of soldiering on with rather overstretched resources, we were delighted to consolidate Jan Beveridge as a full-time Staff Grade and welcome Aberdeen S.R. Donald Thomas to an additional Consultant post. Donald's previous experience as a Medical Officer at the South Pole should stand him in good stead at what is sometimes perceived as a remote location (*the location is a well kept secret revealed only when you join NESSA - thistle*).

In the same week, we were saddened to hear of the death of retired Brechin G.P., Farquhar Edwards, who gave anaesthetics part-time until the early 80s. Farquhar brought couthy philosophy and the waft of pipe tobacco to the operating theatre, as well as tales of "the Sales" garnered from the antique shop he ran in the town.

Anaesthetists here continue to do well with overseas meetings, having been to New Zealand, Australia, Canada, India and all over Europe during the past couple of years (*clearly the place to go for study leave - thistle*). Stracathro also hosts regular N.E.S.S.A. evenings, attracting colleagues from Dundee, Perth and Aberdeen for C.M.E., chat and excellent in-house catering!

Eddie Wilson

HIGHLAND

Since our last report (we're glad to know your still here - thistle) there have been a number of significant changes in the Highland Region.

Dr.Nial Hennesey was appointed to Raigmore in 1995, an ex-Nottingham Senior Registrar when Senior Registrars still existed. His subtle Irish charm has impressed us all. Shortly after he arrived he was married in the chapel at Craig Dunain, the local psychiatric hospital, and we were all relieved to learn later that his wife is a Psychiatrist. Dr.Selagh White retired early in 1996 and we wish her and her husband a long and happy retirement. She is very much missed but we are fortunate to have Dr.Jaqueline Howes back who replaces her. Dr.Sandy Hunter from Aberdeen was appointed at the same time, late in 1996, to reduce the hours of doctors in training. We enjoyed Sandy's company for 6 months before he took unpaid leave as agreed, to work in Perth to gain some experience in Intensive Care Medicine. It only later transpired his destination was Perth, Western Australia, not down the road. We have our fingers crossed that we will see him again next year.

The Belford Hospital in Fort William has also seen sweeping changes. Dr.James Mckay has been joined by Dr.Wagih Antonios from Wick and Dr.Charles Leesar-Payne, another ex-Nottingham trainee. Caithness General Hospital appointed Dr.Vinod Gadiyar to the staff in 1996. Dr.Collingridge has retired and two long term locums have been found to support Dr.Gadiyar.

John May

SOUTH EAST of SCOTLAND

Royal Infirmary of Edinburgh

This has been a fairly eventful year for the Trust, with the move of thoracic surgery from the City Hospital to the Royal Infirmary site occurring in November 1997. This is a forerunner to the move of surgical, obstetric, gynaecological and some medical services from the Eastern General Hospital to the Royal Infirmary in April 1998. These changes have involved the redeployment of many staff to different areas, and the necessity for some building works in the old RIE site.

The new RIE, under a PFI initiative, is still on track to start building in 1998 under the new Government (*the thistle offers odds of 2:1 against*). It is likely that a reduction of Trusts in Lothian will occur shortly with the Government's White Paper.

Dr. Iain Davidson has taken over the reins as President of the Scottish Society of Anaesthetists and has returned to full-time clinical duties following his time as Medical Director of the Royal Infirmary. He has plans to retire in 1998. Dr. Willie MacRae retired from clinical practice in 1997 and relinquished the reins of Clinical Director to Dr. Dermot McKeown. He is proving every bit as wily as his predecessor. Drs. Robin Park and Clark MacIntyre also retired during 1997.

Dr. Nicki Maran has taken up a part time job as co-director (along with Ronny Glavin from the Vici) at the Scottish Anaesthetic Simulator in Stirling, but continues with sessions at the Royal Infirmary Edinburgh (we thought she was already part-time!) and Dr. Bowler, fresh from his move to the RIE with thoracic surgery, has been appointed to an MOD Think Tank on how reserve forces medical officers will integrate military commitments with Trust duties and personal training requirements.

Drs. Barbara Philips and Tim Walsh have been appointed to new SpR training positions in Intensive Care Medicine in South East Scotland, and Dr.Ishrat DeBeaux has been awarded the BJA Fellowship. Anne Goldie has moved from a Senior Registrar post here to complete her training in a specialist post in ICU at Yorkhill.

Several of our trainees have been appointed consultants around the country. Ian Harper to Elgin, John Laurenson and Jeremy Rushmer to Ashington, Mike Soutter to the Southern in Glasgow, Joyce Stuart to Kirkcaldy and Erwin Foo to the Western General in Edinburgh. We wish them all well.

Nigel Malcolm-Smith survived the bad timing of his holiday to Luxor and continues as Chairman of the Anaesthetic Division in Lothian.

Alastair Lee

Western General Hospital

The Western General is about to undergo a major building programme this year with funding from the public sector. A new wing is planned, to be built on the site of the previous nurses' home and link with the Alexander Donald Building opened in 1988. It will include wards, operating theatres and an investigation suite. Her Majesty The Queen will be visiting the hospital in July to officially open the Edinburgh Breast Unit (which has actually been open for a number of years now since the closure of Longmore Hospital) and it is anticipated she will also lay the Foundation Stone for this new wing (*one would have concerns about the weight of the stone in more senses than one - thistle.*).

The sad closure of the Eastern General Hospital as part of Lothian's Acute Services Strategy, does however mean we can offer an open welcome to Drs. Jane Freshwater and Glenys Jones as consultants and Dr.Iqbal in a staff grade position when they transfer in April. Another arrival on site is the 'Portacabin' Infectious Diseases Unit from the beleaguered City Hospital. Apparently designed to last twenty years and rumoured to be second-hand, in keeping with the philosophy of the NHS, the unit will last well into the next millennium. Nonetheless, it adds another dimension to the hospital.

Dr. Ivor Davie retired in 1997 after nearly three decades of service. Unlike his long time colleague, Brian, rumour has it he intends to stay that way! (*the thistle offers odds of 100:1 against*) We wish him well. In the meantime, Erwin Foo has found that Ivor's unique white theatre 'dress suit' fits him extremely well as he succeeds him (*combine it with one of Nick Gordon's ties Erwin, and you'll be the smartest dressed anaesthetist in town'- thistle.*).

Nick Gordon

Eastern General Hospital

The Eastern General has always been a very happy place to work and train, so inevitably, we feel some sadness as we plan for transfer of our services in April 1998 (and you're not the only ones!).

A lot of hard work by our anaesthetic team means we now have three spacious new theatres (with windows - *planners please note- thistle.*), first class monitoring equipment and machines, staffed recovery facilities, a high dependency unit, an acute pain service, a day bed unit, preoperative screening clinics and a full obstetric epidural service. To this we can add anaesthetic offices, library, fantastic ODAs and secretary, ward and theatre nursing teams, good junior doctors' hours and training, resuscitation training, undergraduate and postgraduate teaching, and an essentially consultant based service. Ironically the unit has never been busier and we hope the workload will manage to squeeze in elsewhere without a big effect on waiting lists.

Many anaesthetic careers began at the Eastern and as we move we hope to take with us and continue to develop the highest standards of patient care, particularly in relation to pain relief services, about which we all care passionately.

The planned changes also include the continuation, and hopefully expansion, of the highly successful day-case surgery unit at Roodlands Hospital, Haddington.

Congratulations to Dr.Christine Robison on her regrading as Associate Specialist in 1997. She and Drs. Beamish, Jenkins, McKenzie, Delvaux and McCallum will transfer to the Royal Infirmary Trust, and Drs. Freshwater, Jones and Iqbal to the Western General Trust. Dr. Brian Slawson, whose support has been invaluable, will retire for the third time! (*the thistle offers even odds*).

Janet Jenkins

Royal Hospital for Sick Children

This last year has seen the inauguration of a paediatric retrieval service based at the RHSC and the team, complete with their A to Z, have now travelled far afield throughout Scotland (*members with children visiting friends and relatives should contact Dr.David Simpson, RHSC - thistle.*).

On a broader front, the future of paediatric services within Scotland is being debated at the moment under the auspices of the Chief Medical Officer. It is likely that there may be some implications for us (and Yorkhill) for cardiac surgery and intensive care provision. As always we wait and see.

At home, for the last year we have enjoyed the company, socially as well as at work, of Dr. Justin Reid from Sydney, down under, who as been acting as locum Consultant. We will miss him in both respects.

Meanwhile, we are pleased to be host to the Paediatric Intensive Care Society meeting this year which will be held at the Royal College of Physicians, Edinburgh, in April 1998. Preparations are well under way and the notices will be appearing in your departments soon!

David Simpson

Queen Margaret Hospital, Dunfermline

With the introduction of the new White Paper it is planned that Queen Margaret Hospital, Dunfermline, and Victoria Hospital, Kirkcaldy, will unite as one Trust.

A change of staff during 1997 has seen the retiral of Dr. John Duncan (Big John) who, to the envy of others, is now spending a significant amount of time travelling abroad. Dr. Neil Malcolm, a former Scot, has returned from Canada to play a major role in intensive care practice while Dr. Gilbert, formerly from Glasgow then Wales, has taken up sessions in chronic pain management at the start of 1998. Acute pain management has not been neglected with the appointment of an acute pain nurse.

The Intensive Care Unit has developed a mobile Intensive Care facility known as the Fife Area Shock Team (*FAST - who thought that one up? - thistle.*) which is proving extremely valuable at a time of pressure on intensive care beds.

Paul Nicholas

Victoria Hospital, Kirkcaldy

We were sorry to say goodbye to Dr. Ian Smit, who returned to South Africa last summer, after two years with us as a Consultant. However, every grey cloud has a silver lining. We are delighted to welcome Joyce Stuart who started with us in mid-January 1998. With her enthusiasm, far East experience and superb training in South East Scotland (not to mention Barrister husband - *sexist comment - thistle.*) she is already making her presence known and appreciated.

A further change in staffing has seen Dr.Srikiran move to Greenwich.

Despite proposed changes for a further re-organisation of health care provision in Fife, we have had our Intensive Care facilities improved and the hospital has opened an MRI Scanner which hopefully will be followed by a CT Scanner.

Arthur Davies

St.Johns Hospital, Livingston

White Paper developments are awaited and it is unclear at present whether hospital services in West Lothian will combine with other Trusts in Lothian or remain as a combined community hospital trust in the west.

Dr. Karen Watson has recently returned from maternity leave and has clearly set a precedent with Drs. Donald Galloway, Mike Fried and Mike Brockway joining the bandwagon (*if they have, Dolly the sheep pales into insignificance - thistle.*). Colin Small, in attempting to match Brian Slawson for the number of retirals, has been supporting the hospital in a locum capacity over the past year. Retire from this, and you've only one more retiral to go Colin!

With the completion of Dr.Mike Fried's building programme, there now appears to be a general move of consultant staff to Linlithgow. Rumour has it that he is now interested in the Royal Infirmary site.

Lachie Morrison

Borders General Hospital, Melrose

Whilst we have every sympathy with our colleagues at the Eastern as the hospital closes, it has brought about a significant benefit to our trainees, as one of their SHO posts has been reallocated to the Borders. This will increase our SHO establishment from 3 to 4 with all the benefits that follow. Another piece of good news is that the Trust has finally approved our application for a further Consultant post and we would hope to make an appointment in the near future.

Within the hospital there are a number of develpoments in the pipeline with a major relocation of surgical services. One result of this is likely to be a welcome increase in the number of high dependancy beds (hard work can pay off in the end, BGH is on the up and up - thistle).

Jane Montgomery

WEST of SCOTLAND

Southern General Hospital, Glasgow

The past year has been a fairly quiet one for this department (*we always suspected that - thistle*). Chris Sugden departed for Lanarkshire at the beginning of the year to take up a post as director of a hospice. His consultant post was taken up by Gavin McCallum who moved back to Scotland from London to continue Chris's work in our chronic pain service. The Royal College of Anaesthetists finally came to Glasgow to carry out a much delayed review of anaesthetic training and seemed impressed by our offerings.

The big issue in Glasgow is, as elsewhere in the United Kingdom, money (*how much do they ask for it there? - thistle.*). Glasgow is probably in greater difficulty than other areas in Scotland because it has lost significant funding due to moves to base allocation on population size. As yet there have been no reductions in the number of sites or indeed service. However, the financial situation now appears to be critical. In our own case, we have commenced discussions with our friends in the south-east with a view to co-operation and perhaps ultimately forming a single joint trust. Hopefully any marriage will be one of convenience to both parties rather than of the shotgun type!

Bill Kerr

Stobhill Hospital

Dr Parikh retired in December and we wish him well (one retiral down, two to go - thistle). Hopefully, his interest in Chronic Pain Relief will be maintained by his successor.

For those of you who remember the decrepit Intensive Care Unit, we now have a new 6 bedded Intensive Care Unit, opened to patients in July and officially to Mr Sam Galbraith, Scottish Health Minister in November (*Ministers,particularly this one, always were a special case - thistle*).

Two developments we hope will have progressed by this time next year are the staffing of the HDU and appointment of an Acute Pain Sister

Rodger Hughes

Victoria Infirmary

The main concern for the Anaesthetic Department of the Victoria Infirmary over the last twelve months has been the proposed collaboration and potential subsequent integration of the Victoria Infirmary with the Southern General Hospital. This process, if seen through to its natural conclusion, will have a radical effect on services provided by each of these anaesthetic departments.(*the inside word from the Southern is that you could be in for a quiet year - thistle*).

On a personal basis, the year was dominated by the sudden death of Dr Douglas MacKenzie who had worked as an SHO in Anaesthesia in Crosshouse Hospital prior to his appointment to our department.

Although the current year has seen no substantive changes in our consultant establishment, I think it would be important to acknowledge the retirement of Dr Alan Macdonald in the preceding year as no report was submitted for publication from our department for that period (it wisnae me!) (*name names - thistle*). Furthermore, 1996 also saw the appointment two new consultant anaesthetists, namely, Dr Alan Gillespie and Dr Deepa Singh.

Camie Howie

Glasgow Royal Infirmary

The big news at the Royal Infirmary this year was the announcement by Sam Galbraith that the new build maternity hospital was to go ahead, and by-pass PFI. It is expected to open in the year 2000, with Cannieburn Hospital being re-sited at the Royal in 2001 and a new build A&E department opening the same year. Here's hoping - these develoments are certainly long overdue. (*the millennium dome has vacant space - thistle*)

New consultant appointments this year include Drs Mike Higgens, Malcolm Daniels, Ken James and Ruhy Parris. Dr John Vance retired this year and we wish him the best of luck. Dr Su Tan has departed to Australia for a period of combined maternity and sabbatical leave.

And finally, at long last, all emergency theatre cases will now be done in the Queen Elizabeth Building, (*great news for the rest of us - thistle*) and the new Burns Unit was also opened.

Liz McGrady

Vale of Leven

The workload at the Vale of Leven continues to increase in the form of ECT sessions, an additional orthopaedic session and extra day case dental lists.

The new hospital main entrance is in use (*you've bought a door at last - thistle*) and it is hoped that extended post-graduate facilities will open in the near future.

The Anaesthetic & Theatre Services Directorate continues to function well. Adrian Tully is in his second term as Clinical Director and Bill Easy is still Chairman of Division. Two research assistants from Glasgow University Department of Anaesthesia are now in post with us (*their names will forever remain a mystery - thistle*). Fiona Bryden has returned from maternity leave and both mother and daughter are well.

Adrian Tully

Inverclyde Royal NHS Trust

Serving, as we do, a population of some 130,000, including the Cowal peninsula and the Isle of Bute, the area has recently acquired the unfortunate label of 'the sickest area in the UK.' This can make working here quite exciting at times! (*we know! remember last year's Scottish College Tutors Meeting which you hosted in exemplary fashion? - thistle*).

Our Acute Pain service, which was set up last year, has now become firmly established, with several beneficial spin-offs. The Department currently has six consultants working in it and we hope to be up to full strength in the next year with further appointments.

Margaret Simmons

Annual General Meeting
Peebles Hydro Hotel
1997

Treasurer, Past President, President, Secretary and Editor, David Scott, Alistair Spence, Iain Davidson, Colin Sinclair and Ian Armstrong

' it's the ******** button on the top', ' I look down on him because I am taller, I don't look at either of them because I know whats going on, I know my place

'What?' - I said, are you sure we shouldn't be through there?

'He doesn't know what he's let himself in for!'

'To keep?'

'Yes!' Guest Lecturer, Professor Graham Smith.

'One, two, three, one... - you'll get the hang of it Graham!'

Golf Outing

This year's golf outing was held at Glenbervie on the 29th of May. The weather was glorious, the course was at its best and everybody seemed to enjoy themselves. The Scott trophy was won by Iain Taylor from Ayrshire and the West of Scotland won the afternoon match.

Learning from past attempts on the President's life, this year our President clearly gave the occassion a miss! Eddie Wilson represented Council with distinction (?) and there were mutterings of the dearth of Golfers on Council. This is obviously a matter which will lead to a full and frank discussion at the AGM. Eddie will take this in hand and is planning to hold next year's outing on the traditional date of the last Thursday in May at Ladybank.

Bill Thomson

North East of Scotland Society of Anaesthetists

(Honorary Secretary - Dr.E.Wilson, Ninewells Hospital, Dundee)

Sept. 11th	The challenge of long term neural blockade:
	old problems and new solutions.
	Professor Gary Strichartz (Boston)
Oct. 9th	The Norman Rollason Lecture
	Professor C.S.Reilly (Sheffield)
Nov. 13th	GlaxoWelcome Prize Papers
Feb. 12th	Demonstration - the spread of local anaesthetic
	solution in a glass spine.
	Dr.L.E.S.Carrie (Oxford)
Mar. 12th	Reading of Zeneca Essay Prize
	President's choice of speaker
Apr. 9th	AGM
	Presidential address - Dr.J.Mackenzie

Edinburgh and East of Scotland Society of Anaesthetists

(Honorary Secretary Dr.D.C.Ray, Royal Infirmary of Edinburgh)

Oct. 14th	Liver Transplantation in Scotland
	Professor James Garden (Edinburgh)
Oct. 31st	Ruminations on Architecture
	Professor Andy McMillan, Glasgow Art School
	Joint Meeting with Glasgow and West of Scotland Society of Anaesthetists
	(Glasgow)
Nov. 12th	Tutored Wine Tasting
	Mr.Laurie Webster (Oddbins UK)
	Dr.Mike Fried (St.Johns Hospital, Livingston)
Dec. 2nd	Management of High Risk Pregnancy
	Dr.Frank Johnstone (Royal Infirmary of Edinburgh)
Jan. 13th	Difficult Airway Management
	Dr.Adrian Pearce (Guys Hsopital, London)
	Joint Meeting with ODP's and Anaesthetic Nurses
Feb. 2nd	The unkindest cut of all
	Presidential address Dr.Sandy Buchan
Mar. 10th	Members night
Mar. 28th	Annual Dinner
May 5th	AGM

SCOTTISH SOCIETY OF ANAESTHETISTS

REGISTRARS' PRIZE

The Society annually awards a prize of £250 for the best original paper or essay submitted by an anaesthetist in Scotland holding the grade of Senior Registrar or under. A second prize of £150 and a third of £75 may be awarded for other papers of particular merit at the discretion of the assessors. It is not necessary that the trainee be a member of the Society.

The conditions attached to the award are as follows:

1. The paper or essay 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 in another Journal.

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 there 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 (4 copies) **must** reach the Secretary by **28th February 1998.**

The Secretary places all entries in the hands of the Awards Committee which consists of the President, Vice President and Past President. The members of the 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 of colleagues etc. should not be included.**

4. The Prize will be presented at the Annual Meeting of the Society where the winner and partner will be guests of the Society. The winner will be required to present a digest of their paper at the Annual Meeting and the Society's Trainees Educational Meeting.

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