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PRESIDENT OF THE SCOTTISH SOCIETY

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FORT WILLIAM
ONE OF THE HOT SPOTS IN OUR REGIONAL FEATURE

editorial

Welcome back to the Annals, a record of our speciality in all its many guises. Another striking Donnie Ross cover sets the scene for an exploration of Scottish "regional anaesthesia" - first, colleagues on the periphery reveal how services are sustained at the fringes of the nation, then Stuart McGowan comprehensively explores Scotland's history in all things local.

From a packed Peebles programme, well summarised by Neil Mackenzie, our President Farquhar Hamilton addresses progress in intensive care medicine, revealing that his career direction was set by his pharmacist father; Ian Power contributes a CME Update on Pain; Walter Nimmo clarifies the processes of Drug Development and Lesley Strachan triumphs in the trainees' prize event.

I am delighted the Chief Medical Officer Mac Armstrong took the trouble to survey the current state of Scots medicine, in which he discloses a dark secret. Here again Donnie hits the bullseye with an apt cartoon, depicting Mac, Susan Deacon & a woolly mammoth *(this requiring no further comment from me!)*

Stuart Ingram explores how we should judge quality in his most authoritative Gillies Lecture; Jim Dougall & Tony Wildsmith update us on their fledgling Scottish bodies; and a cheeky "Wee Divot" contributes a duff golf report. Comic relief goes "regional" too: we'll hear about a recent College Visit to *The Vital Spark*, now converted as an Ambulatory Surgical Centre at Tighnabruaich and take a brief look at the first draft of the A-Z of Scots anaesthesia.

E N O U G H ! **(in which a few exclamation marks won't go amiss!)**
Your Editor tries to resist soapboxing on this platform, but again wishes to offer his tuppenceworth, with this short heartfelt selection of slogans & soundbites.

First, never mind "Bring back Matron!" What we really need are the return of those great Ward Sisters, who knew everything there was to know about their patients & the running of the wards. Pay them properly, so our best nurses don't have to move into management and can remain where they belong! Get rid of capital charging and don't hand over any more NHS surpluses to Councils, the Parliament Building or whatever. Less bl***y meetings, please! More properly-funded study leave! And, speaking of courses, *much* more time to go out on the links, particularly on the S.S.A. Golf Day!

We've really had our fill of reorganisation. Regional recombination of primary & secondary care and service redesign are now in progress, and are likely to be followed quite soon by a government-directed integration with social services. The whole health-care bureaucracy is now getting to super-tanker proportions, and orders from the Bridge do take a long time to turn the S.S. NHS around! And if press & politicians don't demoralise us enough, all this appraisal form-filling will take its toll! On the bright side, maybe the new consultant contract and a revised merit award system will bring real benefits to many worthy, hard-pressed anaesthetists? About time!

Thanks again go to our loyal patron *Blease*, Bruce Robertson at *Forfar Photocentre* and Mark, Paul, Bill & all at *Fairprint* for their professionalism & patience. Next year will be my fourth & final edition and I aim to put a few of our "Unsung Heroes" into the archive, together with some talented anaesthetists who possess another string to their bows - I've got an author, an artist and an impresario so far. Nominations will be most welcome - even yourself?

Charlie Allison

view from the top

MAC ARMSTRONG

SCOTLAND'S CHIEF MEDICAL OFFICER

I am now nearing the end of my first year as C.M.O. Scotland and it is a great pleasure to be able to respond to the Editor's invitation to contribute a short piece reflecting on the challenges ahead for Scottish medicine and for anaesthesia.

Some truths never change. The trust patients place in their doctor is one. For anaesthetists, everyday reality is that patients place their lives in your hands. In other ways the world is changing very fast indeed. Certainly the anaesthetic practice of today will be very (but perhaps not fundamentally) different from my own experience of 25 years ago.

For a little known fact is, that among the highways and byways of my torturous C.V., is a spell of six years during which I was one of the team of three G.P. anaesthetists in the West Highland Hospital in Oban. Not that this was a planned career move. Never having done any anaesthetics, it was something of a shock to find that I had serendipitously "inherited" the job when I entered my first partnership in 1975. A period of careful and patient apprenticeship with supportive colleagues, however, allowed me to come up to speed and, practising within careful protocols and rigorous attentions to safety, allowed me to gain experience and insights which would be impossible today. It certainly adds a holistic feel to practice when seeing an old friend with an acute abdomen in a highland cottage in the middle of the night, means you follow them into hospital, admit them, get theatre set up, see them through the laparotomy and back to bed before daylight.

So is life as C.M.O. any more exciting, I hear you ask? The challenges are certainly there for all of us. Our population is one of the unhealthiest in Europe apparently bent on self-destruction, through tobacco and alcohol consumption, poor diet and lack of exercise, not to mention an extraordinary fondness among the young for recreational drugs. Our healthcare system is 20% better funded per head than that down South and has achieved some notable recent successes. A 40% fall in deaths from acute myocardial infarction and half of our targeted fall in deaths from cancer in the last decade are two examples.

Our population is however changing rapidly, projections for the next 30 years show Scotland's population falling overall, with smaller numbers of children but increased numbers of older people, especially the very old. Older people are now the mainstream business of NHS Scotland - a reality which will dominate future healthcare policy making.

The consequences could be stark, especially the rising toll of chronic disease, unless we succeed in persuading today's younger people of the truth that old age is not synonymous with disability. The real goal is a long, full and dependency-free life, increasingly a fact for the more affluent but still far from that for many Scots.

New technology will pose exciting opportunities for doctors, especially the new genetic technologies in stem cell manipulation, tissue engineering and so called "regenerative medicine". We will need too, to invest much more in information management and will see the current focus on information technology fade into the background. Perhaps more important, from my current perspective, is the fact that for the first time in my experience, we are confronting the fact that coping with all of this will require sustained increase in funding and investment, not just for one Parliamentary term but over a generation. We have never before had that opportunity, or indeed that challenge to vision the future.

Although firmly rooted in practicality, Scots have proved equal to every challenge when united behind the shared vision of the goals we have set. I feel that this is true of the medical professions approach to our current problems and I look forward to playing my part in working with you all in delivering on this vital agenda.

Kind regards,

DR.MAC: - *"OCH, THERE'S LIFE IN THE OLD WOOLLY MAMMOTH YET!"*

presidential year

As the autumn tints fade, the festive season beckons and the editor is proof reading the contributions to this year's Annals (which he tells me is to have a "regional" theme), it is time for me to comment on the Society's activities since you accorded me the great privilege of becoming your President last April.

Last year your Council dealt with the two main strategic issues facing the Society, by clarifying its role in Scottish Anaesthesia and revising the format of the Annual Meeting. This year has primarily been a period of consolidation.

The Royal College of Anaesthetists Board in Scotland and the Scottish Standing Committee of the Association of Anaesthetists of Great Britain & Ireland are now firmly established. As agreed at last year's AGM, we transferred our seat on SCHMS to the latter organisation; and currently we have reciprocal observer status on both organisations (as do the Scottish Intensive Care Society and the North British Pain Association). All the main bodies representing Scottish Anaesthesia are therefore linked together, which should ensure good communication, dissemination of information, support for professional activities and the provision of a united approach in representation to government. Throughout all its deliberations, Council paid great attention to the necessity of having a strong united voice nationally. It is indeed fortunate that our organisations were able to agree on workable arrangements for this - an achievement that will undoubtedly result in long-term benefit to Scottish Anaesthesia.

The specialty has much to consider. We are facing increased pressures due to increases in workload, patient expectations & audit requirements. The Health Department & our professional organisations are bombarding us with new initiatives, including appraisal & revalidation. We are constantly being pressurised to increase services without being given the requisite increase in resources to safely provide them. Although very frustrating & time-consuming, it is hugely important to resist any attempt to compromise quality of care in order to meet financial targets. The government's pledge to match the European average for health spending by 2005 may however ease the situation.

The usual uncertainty surrounds manpower planning. Changes in medical student numbers and working practices of trainees & consultants are causing a major rethink. Following national concern, the Scottish Council for Postgraduate Medical & Dental Education has cancelled the proposed cuts in Specialist Registrar numbers and there is now a commitment to substantially increase SpR posts.

I hope the proposed new consultant contract gives full recognition to the major contribution anaesthesia, critical care & pain management make to patient care, service organisation & strategic planning in the NHS. Our predecessors had to fight long & hard to gain parity with other major specialties at the inception of the Service in 1948, thereby ensuring the rapid development of our specialty. It is clearly essential this is not lost as a result of disadvantageous new contractual arrangements.

I was delighted with the 20% increase in the number of members attending the Annual Meeting in Peebles this year. It was particularly gratifying to see more younger consultants and trainees than usual. The improved turnout was most likely due to the radically altered format for the meeting with its increased educational emphasis. A high response rate to a survey conducted by our ever-industrious Secretary has indicated that the vast majority of the members who attended supported the new programme, in particular the morning keynote speaker, the trainee presentations & the shortened AGM. The feedback from the Trade indicated that they also were pleased, both with the improved attendance & with the obvious effort put in by members to spend time visiting the Trade Exhibition.

One of the main highlights of the year was the joint meeting of our Trainees and the Association's Group of Anaesthetists in Training. It was held in St. Andrews in June and was a most enjoyable and memorable three days for the 370 trainees who attended. The scientific & social programmes were excellent, thanks to the dedicated effort and enthusiasm of the local organisers: Lindsay Donaldson, Jonathan Whiteside & Carol Macmillan, advised & supported by Tony Wildsmith.

The Scientific Meeting in Dunfermline, ably organised by Callan Wilson & David Watson in November, attracted its customary large attendance. The speakers' presentations, on a diverse range of stimulating subjects, were of an extremely high calibre. Stuart Ingram delivered an outstanding Gillies Memorial Lecture, containing a wealth of thought-provoking information & ideas relating to quality and anaesthesia.

The social side of the Society is flourishing with good fellowship much in evidence at our various activities at Peebles, at the Golf Outing at Auchterarder and during informal socialising at all our educational meetings.

Sadly, I have to record the death this year of Dr. Arthur Bolster of Inverness, a well-known & respected anaesthetist who was a staunch supporter of the Society & a past President. His Presidential Address in 1966 and his historical contribution to the 25th. anniversary edition of the Society's Newsletter in 1984 make fascinating reading. They both give a detailed account of the development of the specialty in the Highland region and reveal his great dedication to clinical work and his major contribution to local service development over many years. Our sympathy goes out to his wife and family.

Finally, I wish to express my appreciation & thanks to our office bearers: Neil Mackenzie, Jonathan Bannister & Charlie Allison. They have put in an enormous amount of hard work & commitment to keep the wheels running smoothly and to support me in every way. The Society is in safe hands.

Farquhar Hamilton

Medico-Political News

A year ago the Society helped foster these changes to our two national bodies in Scotland. We are grateful to Tony Wildsmith & Jim Dougall for these progress reports and for all their hard work on our behalf. We'll hear further from them at Peebles.

ROYAL COLLEGE OF ANAESTHETISTS BOARD IN SCOTLAND

The Board welcomes the establishment of the Scottish Standing Committee of the Association of Anaesthetists of Great Britain & Ireland within a year of its own metamorphosis from a Standing Committee to a Board. Both developments are integral components of the specialty's response to the devolution process.

Most of the issues which have arisen within Scotland to date have been within the range which the College can respond to within the constraints of its charter, but this will not always be the case. Terms & conditions of service are areas which the College cannot become involved with, but they have not always been pursued in the best interests of anaesthetists by the more general organisations of the medical profession.

However, we must acknowledge that there are potential difficulties & concerns in having several groupings. Although Scotland is a small country, "Health" is an entirely devolved responsibility of the Scottish Parliament. Already we are seeing diversions away from the English model, most obviously in the establishment of organisations such as the Scottish Clinical Standards Board. The potential workload on the specialty's organisations in Scotland could almost be as great as in England, yet we only have about 450 consultants to help with the process.

The existence of several organisations might confuse others, and spread out too thinly around several groupings those people with the time and talent to contribute actively. Close collaboration will be essential, and perhaps we should be promulgating the concept of "Anaesthesia Scotland" rather than that of several distinct organisations. *Tony Wildsmith, Chairman*

AAGBI SCOTTISH STANDING COMMITTEE

As I write, it's my fervent hope that a massive & comprehensive attendance at the first Open Meeting in Stirling on the 22nd. February will render this report redundant as well as historical.

The Committee has now been in being for just over a year and comprises six elected members & those elected members of Council who are resident in Scotland. We also have a representative of GAT.

The initial birthing of the Committee involved forging links & representation with other bodies in Anaesthesia in Scotland. These have included the Royal College of Anaesthetists Scottish Board, the Scottish Society of Anaesthetists, the Scottish Intensive Care Society and the North British Pain Association. In a time of considerable uncertainty regarding the consultant contract, Veronica Reid, Chair of the LNC Forum, joined the Committee, forging closer links with SCHMS.

Assistance for anaesthetists is one of the longest running items on the Scottish agenda. The Chief Medical Officer has set up a Working Party under the auspices of the Scottish Medical and Scientific Advisory Committee (SMASAC) and we have representation on this. Hopefully it will report in the near future with recommendations for a core curriculum for anaesthetic assistance and an agreed transportable qualification. We hope this will bring some rationalisation at last.

The Scottish Executive Health Department has set up a Working Group on the future role of the consultant. Their initial discussions seem to support consultant expansion underpinning changes in working patterns. There is also a Medical Workforce Planning Group under Professor John Temple whose deliberations we await.

It is intended that the Convenor of the Scottish Board and the Chairman of the Royal College of Anaesthetists Board in Scotland will meet jointly with the Chief Medical Officer to represent our views on some of the above matters and it should be possible to report on this meeting at the AGM.

I believe we are making a slow but solid beginning with links to anaesthetic interests within Scotland and close links to our parent body. The Council of the Association were formative in our institution and have since been both encouraging & supportive of our initial efforts. *James R. Dougall, Convenor*

presidential address

"A SENSE OF DIRECTION"

Farquhar Hamilton *Ninewells Hospital, Dundee*

Early Pharmaceutical Connections

For some time I was thinking about what I could give as a Presidential Address. I realised a common theme running through my life has been various connections with drugs. As this has given me a sense of direction, I should like to share a few of my interests, memories and observations with you on this subject. Later, I'll move on to comment on one or two of the directions our specialty has taken recently.

My father was a pharmacist and I have many vivid childhood memories of time spent in his pharmacy. He took me there sometimes when he was called out to dispense emergency prescriptions. I frequently worked there during my school & university holidays. I often read the Pharmaceutical Journal. I washed medicine bottles. Not all of the medicines were dispensed from the bottles & packets produced by the drug companies. I helped make up cough mixtures, pills & ointments using traditional methods & equipment, including the pill machine, the ointment slab, the mortar & pestle.

I was taught how to measure pharmaceutical ingredients by the ancient Apothecary's weight system, used in Europe from as early as 1270. In Britain, scruples, drachms, ounces & grains remained in general use for prescribing & dispensing until abolition in favour of metric units on the 1st January 1971.

I was intrigued by the names on the rather attractive bottles & jars arranged, row upon row, on the walls of his pharmacy. I inherited a carboy for *Solution of Morphine*, not realising at the time that I would subsequently have such an involvement with opiate analgesics.

Medicinal Plants

I read about medicinal plants. In fact, I came across some of them again during a visit to the Chelsea Physic Garden, one of Europe's oldest botanic gardens, established in 1673 by the Worshipful Company of Apothecaries of London to improve training in the recognition & safe use of medicinal plants. The word apothecary is derived from "apotheca" which was a store for spices & herbs. Apothecaries were storemen who supplied medicines and often knew more about medical practice than physicians.

Like the apothecaries of old, I examined the plant beds, discovering one devoted entirely to anaesthesia & analgesia which contained some healthy specimens. Henbane's active ingredients are atropine & hyoscine; latex from the white poppy's capsule is dried to form opium, from which three active alkaloids were isolated: morphine in 1806, codeine in 1832 & papaverine in 1850. The dangerous berries of the belladonna plant are really most tempting. Perhaps the most famous plant extract is salicin, precursor of acetylsalicylic acid, from the bark of the willow tree. *Bayer* launched it in 1899 as aspirin.

Today, almost half the world's best selling drugs originate from the natural world. Modern medicine relies on the chemical creativity of plants to produce molecular clues for the synthetic chemists. The Chelsea Physic Garden is currently involved in a screening programme for new drugs with *Glaxo Smith Kline*.

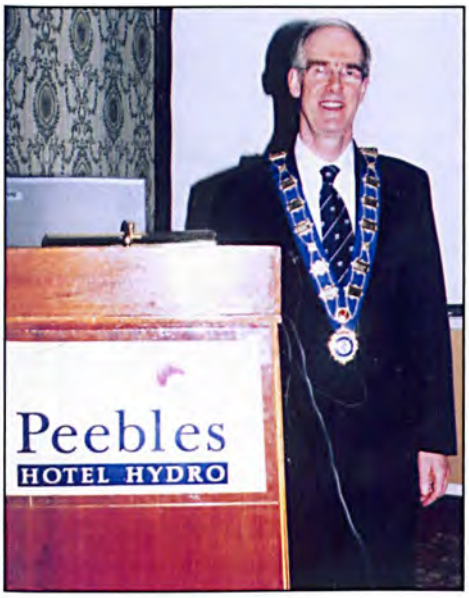
Pill Making

Last year, when visiting an exhibition at the Royal Pharmaceutical Society of Great Britain, I took a refresher course in the traditional art of pill making. Typical prescriptions gave the weight of each ingredient required to make one pill and stated the number of pills required. Multiplying these figures together gave the total quantities to be weighed. Ingredients were mixed using a mortar & pestle and the resulting mass was then rolled into an even length. By measuring this & dividing by the number of pills ordered, the length of each dose could be calculated & the total cut into portions. A pill machine, similar to the one I'd used in my father's shop, simplified the measurement & cutting process. Grooves in a brass plate corresponded to the number of pills and the pill mass could be rolled to the number required. A handle with complimentary grooves was guided to cut the total length accurately into spherical portions.

It was customary to enhance the appearance of the pills. A pearlised finish was achieved by rolling them in a little talcum powder followed by a few drops of varnish. The ultimate finish was a coating of silver or gold, achieved by rotating the moistened pills in a container, lined with silver or gold leaf. Fees were added accordingly. It was talcum for the poor, silver for the wealthy and gold for the seriously rich.

Pharmaceutical Ceramics

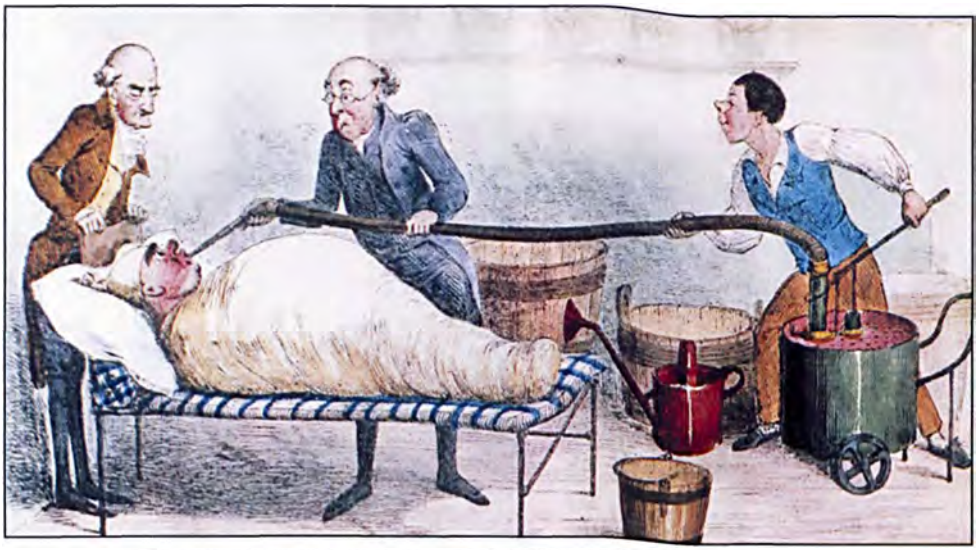
The Royal Pharmaceutical Society's museum contains an impressive collection of material relating to the development of medicine & pharmacy. There is a fine display of pharmaceutical ceramics, notably 17th. century English delftware drug jars & ointment slabs. The jars contained medicines from the 1650 London Pharmacopoeia: *Syrupus Iuiubinus*, syrup of jujubes, was prepared from berries of the jujube tree & considered effective against lung disease. *Conserva Melissae*, from the herb balm, was reputed to strengthen the heart. *Syrup of Althaea*, prepared from roots of marshmallow, had diuretic properties. Some jars, inscribed with the Arms of the Apothecaries' Company, had motifs indicative of a strong Chinese influence on 17th. century pottery. The earliest-known example (1670) of a delftware apothecary's tile used to mix ointments, depicts Apollo, God of Healing, holding a bow & arrow, about to kill the serpent of disease on a shield supported by two unicorns. A rhino crest reminds us that the aphrodisiac & cure-all properties of its horn were valued in medicine. The motto from Ovid's Metamorphosis, reads *"opiferque per orbem dicor"* ("I am called throughout the world, the bringer of aid").



FARQUHAR HAMILTON IS CONGRATULATED BY RETIRING PRESIDENT DOUGLAS ARTHUR

†	**Scruple**	= 20 grains
†	**Drachm**	= 60 grains
†	**Ounce**	= 480 grains

VIEW FROM THE ROOFTOP TERRACE OF THE ROYAL PHARMACEUTICAL SOCIETY



"THE PATIENT IS TIGHTLY ENVELOPED IN BLANKETS TO PERSPIRE.
IF HE LIVES LONG ENOUGH, HE IS USUALLY MADE A MUMMY OF OR CURED,
THE CHANCES ARE EQUAL.
THE HANDS BEING CONFINED, WATER IS GIVEN PLENTIFULLY THROUGH A TUBE,
OBVIOUSLY THOSE WHO THUS EXPECT TO BE CURED,
WILL SUCK IN ANY THING, ANY QUANTITY AND AT ANY PRICE".

JACOB BELL
THE EMINENT LONDON PHARMACIST
WHO FOUNDED THE PHARMACEUTICAL SOCIETY
AND WAS EDITOR OF ITS JOURNAL

With thanks to the Museum of the Royal Pharmaceutical Society, who provided these pictures for us.

Medical Caricatures

An area in the museum housed a special millennium exhibition of the Society's collection of medical caricature prints, entitled *"The Quack Doctor."* The museum's publication *"The Bruising Apothecary"*[1] contains descriptions of many 18th & 19th century caricatures satirising physicians, apothecaries & pharmacists. Some satirising claims for advances in medical treatment reveal the extent of public interest & suspicion. In one of the best illustrations we see quacks attending to a patient undergoing the latest craze: water therapy. Could this caricature be used today as a comment on the efficacy of immunonutrition, currently the fashionable way to feed patients in intensive care?

The ineffectiveness of medical treatment is a constant theme - one that combines scepticism for medical dogma with a mockery of the public for their willingness to go along with it. A man in complete misery is shown using four different treatments in an attempt to cure his cold. We could all quote examples of ineffective blunderbuss therapy practised today.

It was a time of fierce rivalry among the medical & pharmaceutical professions, struggling to establish monopolies in the practice of medicine & the sale of drugs, with little distinction between recognised professionals & irregular quacks. I remember one caricature of two warring households, with the rival quacks, their wives, dogs & cats fighting in the street between their two competing premises. I am reminded of the modern-day colloid versus crystalloid fluid replacement controversy raging across the Atlantic.

A scene showing the dubious nature of contemporary medicine, depicts the inside of an apothecary's premises full of ill elderly customers. A waiting patient is alarmed at the appearance of the apothecary's assistant, a grinning skeleton Death, seen pounding a large mortar marked *"Slow Poison"* behind a curtain. We feel *we* have problems with our public image and are pilloried by the media. In those days commentators were just as ruthless!

The Discovery of Anaesthesia

Before my visit to the Royal Pharmaceutical Society, I had not appreciated the extent of the pharmacist's involvement in the early days of anaesthesia. In his historical publication *"Royal Pharmaceutical Society of Great Britain 1841-1991"* [2] S.W.F. Holloway gives an illuminating account of this.

In 1846, when ether anaesthesia was first discovered, most of the leading London pharmacists became involved in its introduction into clinical practice. They designed inhalers for administration, researched possible alternative volatile agents and anaesthetised patients. It is well known that Robert Liston carried out Britain's first major surgical operation under general anaesthesia at University College Hospital, when he successfully performed a painless above-knee amputation on his patient Frederick Churchill. Ether was administered from an inhaler made by Peter Squire, the Queen's pharmacist. A diagram (published in the *Pharmaceutical Journal*, Dec 1846) shows an ether-soaked sponge in the upper part of the apparatus. Vapour descends through a tube to the lower part, to which is attached a flexible tube, non-return valve & mouthpiece and patients inhaled the ether / air mixture.

Pharmacists of that period devoted a lot of effort to improving ways of administering ether. In 1847 the eminent London pharmacist Jacob Bell designed his own apparatus, consisting of a quart bottle containing ether and a flexible tube joining it to a valve box. A mouthpiece was made of glass, instead of the more commonly-used wood, to allow it to be easily cleaned, as Bell felt patients might object to a wooden mouthpiece saturated with moisture from a previous patient. This may be the first reference to infection control in anaesthetic circuits.

His valve box consisted of inspiratory & expiratory non-return valves, formed from glass discs, housed within a transparent glass tube. Bell pointed out that by watching the movement, or lack of movement of these valves, the operator could immediately detect any leak at the mouthpiece - perhaps the first reference to a monitoring aid to detect leaks in anaesthetic circuits. Most inhalers had been constructed to make them the best possible regardless of expense. Bell considered it was also desirable to design the most cost-effective one possible - the earliest references to economy in anaesthesia?

Jacob Bell regularly worked at The Middlesex, administering anaesthetics using his own equipment and supplying the ether. His pharmaceutical business manufactured & sold various other volatile chemicals. Bell was actually the first person to use chloroform, in a very dilute form, as an anaesthetic, fully nine months before James Young Simpson announced his discovery in November 1847. It was clear, however, from Simpson's paper that he was unaware of Bell's prior use of chloroform. The significant advance, for which it is fitting that Simpson gained the recognition, was not the idea of trying chloroform, but proving that, as an anaesthetic, it had certain advantages over ether. If Bell had done this, he would today be credited with its introduction into anaesthetic practice.

The discovery of anaesthetics was the greatest pharmaceutical advance of the 19th century. It was the first time that organic chemists had synthesised agents which produced an important therapeutic effect. The leading chemists or pharmacists not only believed that it was their duty to investigate & commercially prepare the best agents for producing anaesthesia, but also, due to their chemical knowledge & practical skills, considered that they were suitably qualified to give anaesthetics. The prospect, however, of pharmacists working alongside surgeons in the operating theatre was unacceptable to the medical establishment of the time, which felt that its privileges were under threat.

The Pharmaceutical Society had just been founded & required the support of the medical profession to achieve its ambitions. The pharmacist's sense of direction dictated that the successful establishment of their Society should be their prime objective. As it was considered politically unwise to upset the medical profession, the pharmacists gave up giving anaesthetics, leaving the field to house surgeons & hospital porters!

Ether Anaesthesia

I am sure my childhood pharmaceutical connections influenced my decision to choose medicine as a career and may also have determined my choice to specialise in anaesthesia. As an Aberdeen medical student in the '60s, it was necessary to see a number of anaesthetics, I think ten, actually being administered.

I was rostered to attend the paediatric ENT list where Dr. Ian Smith gave an interesting demonstration of ethyl chloride & ether anaesthesia for tonsillectomy, using a Schimmelbusch mask.

Induction of anaesthesia was achieved by spraying ethyl chloride one & a half times across the gauze covering the mask before dropping ether onto it.

Classical open ether anaesthesia made quite an impression on me at the time.

Mucolytic and Bronchodilator Drugs

Following my resident house officer jobs, I spent a year as a Research Assistant in the Department of Medicine, based in Aberdeen Royal Infirmary. Dr Ken Palmer, Reader in the Dept., who had an international reputation in respiratory medicine & ran a well-equipped pulmonary function laboratory, guided my research. *Boehringer Ingelheim* financed my appointment.

Their new mucolytic agent, bromhexine (later *bisolvon)* was the main focus of my research. A synthetic derivative of a plant alkaloid, it had been shown to reduce the viscosity of bronchial secretions in animals, indicating that it might be of use in the treatment of chronic bronchitis. Clinical trials on patients, however, had yielded conflicting results. We noted that most had not allowed for the different fibre structure of mucoid & mucopurulent sputum. Mucoid sputum is a mucoprotein mucopolysaccharide gel whereas mucopurulent sputum is not a gel, but consists of parallel bundles of fibres of desoxyribo-mucoprotein derived from degenerated pus cells. Mucoid sputum has a higher viscosity than mucopurulent sputum, which explains the observation that patients often find mucoid sputum more difficult to expectorate. Clinical trials must therefore take sputum fibre structure into account.

My randomised controlled clinical trial in convalescent chronic bronchitic in-patients with mucoid sputum, compared bromhexine with placebo. Bromhexine caused a significant increase in sputum volume & a significant decrease in sputum viscosity by causing depolymerisation of the mucopoly-saccharide gel fibres. Unfortunately, there was no associated improvement in ventilatory capacity or in the overall respiratory state as assessed by the patients themselves or their clinicians. Bromhexine was first marketed in the U.K. in 1968. In the late '70s it was put on the so-called "blacklist" and could not be prescribed in the NHS. I was interested to learn recently that it is still licensed in Ireland, Germany, South Africa & Australia.

I was also involved in other studies, mainly in asthmatics. We demonstrated the cardioselective ß-blocker practolol prevented a fall in arterial oxygen tension following isoprenaline inhalation by abolishing its cardiovascular effects without reducing its bronchodilator action. We compared the bronchodilator drugs isoprenaline & salbutamol, finding salbutamol was associated with comparable bronchodilatation, greater cardiovascular stability and a longer duration of action. I felt that I gained a lot from this drug research year.

Toxicity of Volatile Anaesthetic Agents

One of the topical issues during my years as an anaesthetic trainee in Aberdeen in the early 1970s, was the toxicity of volatile anaesthetic agents.

Halothane hepatitis was widely debated. I recall presenting the finely balanced evidence for & against its existence at a Departmental meeting. Over subsequent years evidence supporting halothane hepatitis became stronger. The consensus view developed that liver damage following the use of halothane, although rare, *did* occur and its most severe form progressed to massive hepatic necrosis with a likely fatal outcome. The complex metabolic pathway of the agent was shown to be the mechanism of the damage, most likely by an immunological effect on hepatocytes, with genetic predisposition playing a major role in its development. The medical defence societies took the view that a repeat halothane anaesthetic in a patient who subsequently developed liver necrosis would be difficult to defend. The decline of what was for years the most popular inhalation anaesthetic was inevitable.

There was also methoxyflurane nephrotoxicity. My consultant colleague, Dr. George Robertson, invited me to participate in his research. During the previous 10 years, there had been numerous reports, mainly in the American literature, describing high-output renal failure after methoxyflurane anaesthesia. Many studies had failed to show renal dysfunction. The American reports did not reflect the way methoxyflurane was used in the U.K. In particular, high inspired concentrations were administered for long periods of time and the total dose used was substantial. Our research investigated the changes in renal function associated with lower-dose methoxyflurane anaesthesia as practised in the U.K.

We found methoxyflurane anaesthesia was associated with increased serum uric acid concentration, a most sensitive indicator of renal tubular function. Our second study determined this increase was dose-related. Further studies demonstrated there was also a significant dose-related reduction in urine osmolality & increase in urine fluoride concentration. They supported the conclusion that dose-related changes in serum uric acid concentration & urine osmolality are due to renal tubular dysfunction caused by the effect of fluoride, a recognised renal toxin, derived from the metabolism of methoxyflurane. We took the view that the relatively small doses of methoxyflurane normally used in the U.K. were likely to cause transient, clinically insignificant changes in renal function but that the higher doses, commonly used in the U.S.A., might cause more serious renal impairment. Methoxyflurane ceased to be available here in 1984, but I understand it can still be obtained in Germany, the U.S.A. & Australia.

I was very appreciative of this opportunity to be involved in such significant & stimulating research.

Halothane hepatitis and methoxyflurane nephrotoxicity teach us that significant problems with volatile anaesthetic agents may manifest years after their successful introduction into clinical practice. The issue is still relevant today. Studies have not, so far, fully allayed the concern surrounding the possibility of renal damage occurring in patients receiving sevoflurane anaesthesia using low gas flows in the presence of soda lime. We cannot be certain that toxicity problems will not arise with other currently popular volatile anaesthetic agents.

Beta-adrenoceptor Drugs in Thyrotoxicosis

I was appointed a consultant at Ninewells Hospital, Dundee in 1976. Not long after, I became involved in clinical research on the ß-blocking drug propanolol on hyperthyroid patients, initiated by Mr. Andrew Gunn, consultant endocrine surgeon and Dr. John Feely, lecturer in endocrinology. Various other members of their Departments also participated. Sandy Forrest & I provided the anaesthesia contribution.

Soon after its discovery, propanolol was successfully used to control the symptoms of hyperthyroidism during preoperative preparation & peri-operative management of hyperthyroid patients for thyroidectomy. Its main advantage compared with conventional antithyroid drugs is that a much shorter preparation time is required prior to surgery. Although most patients responded well to propanolol, there were occasional worrying case reports of thyroid crisis occurring post-operatively.

Our studies demonstrated that thyrotoxicosis causes a significant reduction in the plasma propanolol steady-state concentration, indicating an increased rate of metabolism, and that there is wide inter-individual variation in plasma propanolol steady-state concentration during therapy in hyperthyroid patients. Time-consuming dose titration is required for every patient to ensure an adequate degree of ß-blockade.

Following thyroidectomy, plasma propanolol levels steadily decline from the pre-op. value to a trough 8 hours after surgery. The levels were significantly below those associated with adequate ß blockade. This early postoperative decline can be attributed mainly to dosage omission due to nausea, somnolence & dysphagia and partly to impaired gastric absorption. Low plasma propanolol levels, associated with inadequate ß blockade, explain the case reports of thyroid crisis occurring in the early postoperative period.

The addition of potassium iodide for 10 days preoperatively to the propanolol regime reduces thyroid hormone levels towards normal & results in a better response to surgery. Patients were less thyrotoxic but inadequate ß-blockade remained.

Due to propanolol administration difficulties, we considered there might be a place for a ß-blocker with a much longer duration of action. We studied nadolol, which can control the symptoms of thyrotoxicosis using a single daily dose. We found, in contrast to propanolol, that plasma nadolol levels were satisfactory throughout the entire 24-hour peri-operative period in all patients undergoing thyroidectomy. There was a reduced need for dose-titration of nadolol preoperatively and the timing of surgery was less critical in relation to the timing of drug administration on the day of operation compared with propanolol. We concluded that the combination of nadolol & potassium iodide given 10 days preoperatively offered real advantages in the preparation of the thyrotoxic patient for surgery.

I found multidisciplinary clinical research stimulating, enjoyable & worthwhile. There's nothing like close collaboration & team spirit which research develops between colleagues, inside & outwith one's specialty, to engender lasting respect & friendship.

Drug Therapy in the ICU

My Dundee consultant post included a significant commitment to intensive care medicine. I have observed that drug therapy in the ICU is seldom evidence-based and is often controversial. It may be conveniently subdivided into two groups: specific, for curing disease and supportive, for buying time, preventing complications & keeping patients comfortable.

Although specific antibiotic therapy, based on culture & sensitivity testing, may be successful, there is a significant & increasing problem with antibiotic-resistant organisms, particularly in immunocompromised patients. Specific drug therapy, other than antibiotics, for sepsis & its sequelae, septic shock, the systemic inflammatory response syndrome, ARDS and multiple organ failure, which are the main cause of mortality in intensive care units, has been disappointing.

Over the years, a huge effort has been made to try to develop drugs to regulate the inflammatory response, reduce cellular injury & prevent organ system failure; with many clinical trials on immunotherapeutic drugs aimed against various mediators including cytokines, tumour necrosis factor, interleukin & endotoxin.

In 1991, a randomised controlled clinical trial, conducted by Ziegler & his colleagues in the US, found that immunotherapy with the human monoclonal antibody *centoxin* directed against endotoxin, significantly reduced 28 day mortality in patients with Gram-negative bacteraemia & septic shock. It was claimed that a single dose of centoxin, added to conventional supportive therapy, resulted in a 39% reduction in mortality in patients with gram negative bacteraemia, a 42% reduction in mortality in patients with Gm -ve bacteraemia & shock and a 58% reduction in mortality in patients with Gm -ve bacteraemia & proven endotoxaemia. These were impressive figures.

I had to make a case to our Trust for the use of this very expensive drug in the multi-centre UK trial, set up to investigate these findings. The treatment of septic shock & multiple organ failure is expensive & a drug, even costing £2200 per treatment, which reduced complications, may well have been very cost-effective. Unfortunately, the trial not only failed to confirm Ziegler's results, but had to be discontinued when interim results indicated that mortality was greater in centoxin-treated patients. A huge number of these immuno-therapeutic drugs have been investigated and none have been shown to influence outcome.

Much effort has also gone in to the development of other pharmacological agents to treat sepsis & prevent multiple organ failure. One of the most promising is recombinant Human Activated Protein C. Trials are currently in progress to assess its efficacy in improving the haemostatic defect in patients with severe sepsis. Preliminary results are encouraging, indicating that it can significantly improve the parameters of coagulation & inflammation in those patients and may improve outcome.

Nitric oxide improves oxygenation & pulmonary vascular resistance, but has not been shown to improve survival.

In the 1980s, studies on the use of corticosteroids yielded conflicting results. The issue seemed to be settled when several major controlled clinical trials demonstrated that the early use of high-dose steroids in sepsis & ARDS was not beneficial and might actually increase mortality. Steroids, however, have not been totally written off. Recent clinical trials on low-dose steroids demonstrated improved outcomes in patients with septic shock, and also in patients with unresolving ARDS. Most of us working in intensive care can recall purely anecdotal cases of the successful use of steroids in these patients.

A greater understanding of the biochemistry of sepsis should have resulted in the development of effective specific therapies, but this has not happened yet. Research workers in this field have suggested that perhaps it will prove to be more effective to use a combination of drugs rather than a single drug to prevent or treat hypoxic & septic disturbances that cause multiple organ failure. There is no magic bullet but perhaps there is a magic blunderbuss. This may be analogous to someone trying to cure their cold using multiple treatments as depicted in that caricature!

Of course, just because clinical trials find a treatment does not alter overall outcome or is associated with an overall adverse outcome, does not mean that no patient will benefit from that treatment. The results of clinical trials are only one aspect of the evidence that should be considered. Evidence-based medicine indicates that it is valid to take clinical experience into account. Critically ill patients are a disparate group and we should not become discouraged. We must continue in the same direction, following every potentially promising research avenue to find successful treatments. Effective immunity-enhancing drugs and drugs to reverse organ damage may yet be discovered.

The situation is not much better when one considers supportive drug therapy. Few routinely-administered drug treatments have been proved to influence overall outcome. Many are associated with serious side effects & are therefore controversial. It is very much a case of hoping for the best in an evidence-free environment. This applies to the routine use of histamine receptor antagonists or sucralfate for stress ulcer prophylaxis, to selective decontamination of the digestive tract for reducing the incidence of nosocomial infection, to both the best choice & optimal dosage of drugs for haemodynamic support and to the long-term administration of individual sedatives & analgesics.

Although there are problems associated with long-term use of muscle relaxants in ITU, they are very effective as supportive drug therapy. Intensive Care owes its very existence to curare and its introduction into clinical practice gave our specialty a new sense of direction.

In 1952, the Epidemiological Hospital of Copenhagen was under great pressure as the polio epidemic began. It had very few iron lung & cuirass ventilators (the only types of ventilators available at that time) and was admitting 50 new polio cases a day. Chief Physician Professor Lassen had the dilemma of prioritising which patients should be ventilated and thereby given a chance to survive, although mortality was very high even in ventilated patients.

It was suggested that Dr. Bjorn Ibsen, an anaesthetist at the hospital, might be able to provide useful advice, based on his knowledge of respiratory failure & experience of curare in the operating theatre. Lassen was reluctant to do this, reflecting a prejudice, common at the time, that anaesthetists were not really "proper doctors" but only technicians whose expertise did not extend beyond the operating theatre.

Ibsen was consulted, however, and his innovative solution of replacing inefficient negative-pressure iron lung ventilators with manual intermittent positive pressure ventilation via a cuffed tracheostomy tube was revolutionary. Survival rates of polio victims improved from around 10% to well over 50%.

This was the birth of intensive care and anaesthetists subsequently became involved in the management of all diseases causing respiratory failure. However its development was not a rapid business. There was a reluctance to provide resources for the optimal management of ventilated patients. For many years patients were ventilated, on an ad-hoc basis, using poor equipment, little monitoring, inexperienced nursing & medical staff in the side-rooms of ordinary hospital wards. Gradually, basic respiratory units were opened and these progressed to the more sophisticated intensive care units of today.

Organisation and Delivery of Critical Care

Management of the critically ill patient therefore involves more than specific & supportive therapy. Organisation and delivery of that therapy is also important. At any given time progress tends to be more rapid in one component rather than another. The main current area of progress is the organisation & delivery of intensive care - or critical care as it is more frequently being called. It has recently been given a high profile by both government & the profession.

Last year, the Department of Health & the Scottish Executive Health Department, following adverse publicity surrounding the chronic shortage of ICU & HDU beds, each set up Working Groups to review adult critical care services. The resulting reports, *"Comprehensive Critical Care"* in England & Wales and *"Better Critical Care"*, its Scottish equivalent, outline a programme for the development of critical care services.

These reports emphasise that critical care is not a new name for intensive care, but is a new approach based on severity of illness. Sometimes referred to as critical care without walls, it is about the recognition & management of different levels of critical illness in patients in wards & high dependency units as well as in intensive care units. Level 1 care is for patients at risk in the wards, by far the largest group of patients. Early identification & appropriate management, in many cases, would prevent clinical deterioration and thereby alleviate pressure on ICU & HDU beds. It would also ensure early referral of suitable patients and prevent inappropriate admissions.

The reports recommend increased flexibility both in the use of ICU & HDU beds and in work practices between individual specialties & professional groups. They recommend individual Trusts should be linked to form networks that will consider the provision of critical care services on a national basis. Perhaps the most important recommendation is that each acute hospital Trust should establish a Critical Care Delivery Group. The individuals responsible for managing critically ill patients will determine, via membership of these multi-disciplinary groups, how care should be organised to best meet their centre's need.

Critical Care Delivery Groups must address various important issues. These include provision of the correct number of adequately staffed & equipped ICU & HDU beds, the necessity to improve ward care of at-risk patients, medical & nursing staff training & workloads, communication between staff from all disciplines, guidelines & audit.

It is their role to highlight which local evidence-based alterations in service delivery need to be made, to provide practical options to achieve them & to insist that necessary resources are obtained prior to implementation. Arguments based on clinical governance & risk management will be influential in achieving these changes. Groups should communicate effectively with Trust & Health Board and National Networks.

We now have a great opportunity to influence the way critically ill patients are managed in Scotland. Consultant anaesthetists with an interest in intensive care, like myself, chair the majority of Critical Care Delivery Groups. Although much of the input to the assessment & management of these critically ill patients will be done by anaesthetists with a special interest in intensive care medicine, I believe that it would be beneficial for all anaesthetists to be involved. The number of patients requiring critical care is steadily increasing and substantially exceeds the capacity of intensive care medical staff alone to cope.

The clinical work of anaesthesia & critical care often overlap and many consultant anaesthetists are already heavily involved in acute pain management, fluid balance & oxygen therapy in HDUs & in the wards. Most wish to maintain or increase their involvement. I believe anaesthetists must retain close links with critical care, since loss of involvement would significantly impair recruitment of able trainees, seriously damaging the specialty and reducing its valuable contribution to the management of the critically ill.

Anaesthetists, both with & without a specific intensive care commitment, are certainly the best-trained hospital medical staff to fulfil the role. Our Royal College & the Intercollegiate Board for Intensive Care Medicine have defined standards of care and competency based training programmes have been established.

The Rt. Revd. David Jenkins, former Bishop of Durham, in the 1991 RCA Frederick Hewitt Lecture, observed anaesthetists were especially team persons, whose skills & resources were usually part of a "bigger operation" as he put it. He suggested we were particularly fitted to contribute to the wider issues and longer term campaigning on a range of important subjects. I agree with him and consider the provision of critical care to be one such subject. We are used to teamworking and are well suited to work with those in other acute specialties to organise, provide and indeed lead critical care in HDUs & wards as well as in ICUs. The argument, that we are not fully-trained physicians and cannot therefore safely deliver the full range of care required, is not a valid one.

We have come far from those prejudicial times, prior to the Copenhagen polio epidemic, when it was considered that the anaesthetist's expertise did not extend beyond the operating theatre. Our skills are becoming increasingly recognised. Many surgeons, at present in charge of HDUs, and some ward-based physicians, accept that we are better qualified for this role than they are, and would welcome our involvement.

We should actively seek involvement, along with funding & time to permit us to do the work, both clinical & organisational, to standards laid down by our professional bodies. We should use Critical Care Delivery Groups & clinical governance to drive through changes we wish to see. As healthcare evolves, some specialties will gain influence while others lose. I believe a higher profile by anaesthetists in HDUs & wards throughout Scotland would result in greatly enhanced patient care and a much greater recognition, appreciation & understanding of our speciality's contribution to it.

Early pharmacists, anxious not to offend a powerful medical establishment, gave up all involvement in the practice of anaesthesia, leaving it in the hands of inexperienced house surgeons & hospital porters. We must not, anxious lest we offend colleagues in other specialties, leave the developing field of critical care medicine in the hands of inexperienced surgeons or physicians & nursing staff.

Perhaps I could borrow from the old caricature (on page 8) illustrating the government of the day's commitment to reform. It could be applied to *our* government's recent commitment to NHS reform. It depicts a one-eyed, bandaged John Bull (or the Scottish NHS in the year 2001) right arm in sling, left leg gouty, plasters on his face, in bedgown & nightcap, seated near a table on which is placed a box of pills & a medicine bottle. On the floor lies a paper headed *"Reform - Our National Health"* The speech bubble reads: "My Health and Strength were going Fast to a Certain Dissolution When Strange to say One Pill at last! Hath saved my Constitution"

I'd like to rename the medicines Blair's pills and Deacon's purge. The NHS will take them in the form of substantial above-inflation increases in funding over the next few years. Resources should be directed to reforms that can sustain big long-term improvements in health care. Development of critical care services can offer these and should receive a generous allocation. Implementation of recommendations in *"Comprehensive Critical Care"* & *"Better Critical Care"* will certainly require significant resources. There's a major lack of high dependency beds, particularly in medicine. Large numbers of highly trained nurses will be required. Additional medical staff time will need to be funded. There will be space development & equipment costs.

In England & Wales, things seem to be forging ahead rapidly. £142m annual recurrent funding has already been allocated for the expansion of critical care and is already resulting in more staffed critical care beds. I have become increasingly aware that advertisements for new consultant posts are now appearing which make it clear that posts have been created to support expansion of critical care services, as defined in the reports, with responsibilities usually split between critical care & anaesthesia. They also state that applicants should have an interest in both intensive care & high dependency care, and be willing to establish an outreach service for patients at risk in the wards.

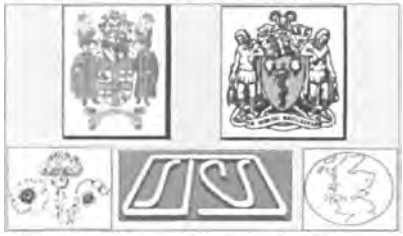
I am somewhat concerned that comparable resources may not be forthcoming for critical care in Scotland. Only a relatively small amount of dedicated funding has so far been committed. The health agenda has been set out in various Scottish Executive Health Department publications, the latest of which is entitled *"Our National Health"*. I was disappointed that I could not find a single reference to anaesthesia, intensive care, high dependency care or critical care anywhere in this key policy document. The report *"Better Critical Care"* is not even included in its large list of references. I hope this excellent report is not going to join the pile of health agenda publications, which are merely rhetoric.

A Sense of Direction

The Original Minutes Book of Minutes of the Scottish Society of Anaesthetists, describes its foundation 87 years ago. The founder members were all doctors practising the specialty of anaesthetics in Scotland. They held a dinner at the Balmoral Hotel in Edinburgh on the 20th February 1914. Eleven attended with three apologies for absence. After dinner, a business meeting resolved unanimously that a Society of Anaesthetists be formed for Scotland. They drew up the constitution which stated that *"the objects of the Society will be to further the study of the science & practice of Anaesthetics, and the proper teaching thereof, and to conserve & advance the interests of Anaesthetists"*.

I wonder what they would have thought of the numerous clinical advances & major organisational developments in the specialty over the years. I'm sure the founders would have been very interested but perhaps they would not have been altogether surprised. They had the vision to see that they were at the forefront of the emergence of an important new specialty and recognised that it required a sense of direction - and sought to provide it. They therefore instituted the first national "network".

The Scottish Society of Anaesthetists has withstood the test of time and has achieved much. It was successful in 1971 in convincing the Faculty of Anaesthetists of the Royal College of Surgeons of the necessity of establishing a Standing Committee to handle the different Health Service arrangements in Scotland. Recently, it was involved in discussions with the Royal College of Anaesthetists, the Association of Anaesthetists of Great Britain & Ireland, the Scottish Intensive Care Society and the North British Pain Association on the most appropriate way to represent the specialty's interests in a devolved Scotland. The College restructured its representation here and launched its Scottish Board in September 2000. Precluded by its charter from getting involved in certain political issues, it deals predominantly with matters relating to education, training & standards.



Our Society, after serious deliberation, decided not to change its constitution in order to adopt a more political role. Instead, the Association, with its established infrastructure, will fulfil this function via its Scottish Standing Committee, on which the Society has observer status. While we therefore retain some input to the political scene, our main path will follow the direction of the signposts, "education" & "social", depicted in Donnie Ross's attractive painting on the cover of the 2000 Annals. The Society has taken account of this change of direction by altering the format of the Annual Meeting, to increase its scientific content at the expense of time devoted to business & medical politics.

It is helpful when making decisions to have a strong sense of direction. When opportunities arise they can be quickly grasped, secure in the knowledge that they are leading closer to one's goals. My early pharmaceutical connections gave me my sense of direction, which led first to the study of medicine and subsequently to a career in anaesthesia & intensive care.

The founder members of our Society set the specialty on the correct path. We should continue to follow it by embracing their broad outlook & democratic approach. It is fortunate that all the main players in Scottish Anaesthesia have been able to agree on a united approach to representation to Government.

Although the foundation of our practice & professional expertise is the care of patients in the operating theatre, and we should seek to develop this, we should also decide to expand the specialty's influence elsewhere, whenever the opportunity arises. We should now seize the opportunity provided by recent developments in critical care to improve the management of patients in our hospitals and thereby enhance our specialty's reputation. We must endeavour to do this as as a cohesive, united & therefore strong specialty.

We must maintain our sense of direction. I am sure the founder members of the Society would approve.

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SPECIAL FEATURE

Scottish Regional Anaesthesia

AT THE OUTER LIMITS

In order to record this information in the archive, the Annals explores a snapshot of anaesthetic services in all the remote places. We are grateful to the authors & photographers for their exceptional contributions, both to the Journal & to their communities.

STRANRAER Ranald Spicer

Galloway is a beautiful part of Scotland - peaceful & relatively undiscovered. The spectacular coastline features many fine beaches, and for those inclined, there's a full range of water sports. Inland, there are fascinating forest trails, including the extensive Kirroughtree Forest Park & Loch Trool. Many hill walkers will have tackled the Merrick (at nearly 2,800 ft), but there are countless other peaks in the challenging Galloway Hills. Other sports including swimming is on offer at the excellent Ryan Centre in Stranraer (opened 1993). There are five golf courses within a 10-mile radius, including Dunskey, at Portpatrick, a quaint coastal village popular with tourists. Stranraer (approx. 12,000 population) nestles at the head of Loch Ryan, a busy ferry/shipping lane carrying nearly 2 million passengers each year to & from Northern Ireland. It is also at the end of the line for the busy A77 (from Glasgow) & the A75 (from Dumfries & the South).

Despite the serenity of the Galloway countryside, the medical set up in Stranraer has for many years been a political hot potato. The Wigtownshire population (approximately 30,000) is served mainly by the Garrick & Dalrymple Hospitals in Stranraer. Apart from geriatrics & a small obstetric unit (Dalrymple), the Garrick receives all the acute admissions - it comprises an A&E Department, Surgical & Medical wards (total beds just over 40), a theatre unit, fully staffed biochem/haem. lab plus physio etc.

Until 1997, Surgical Services were spearheaded by a Consultant & Associate Specialist providing a full range of general surgery incl. urology, minor orthopaedics etc. Of course there was also a facility to observe abdominal pains, head injuries & so on. Thereafter the set-up changed significantly with the introduction of three Staff Grade Surgeons at the Garrick, visiting Consultant Surgeons from DGRI (Dumfries) twice weekly and procedures limited largely to minor/intermittent day case surgery. Concomitantly, emergency surgery virtually ceased to exist - all cases went to Dumfries. The same is true of a sizable number of abdominal pains, even Colles#s etc. An extra monthly gynae & orthopaedic list has done little to replace the previously busy theatre sessions. Consequently, morale amongst nursing staff (& Anaesthetists!) nose-dived during the past few years. Indeed six excellent nurses left their posts here during the past two months.

Historically, Stranraer's Anaesthetic Service had been provided by four GP's. The last GP retired in the mid-1990s when Hamish Stewart, as full time Consultant Anaesthetist joined myself (part-time Consultant) to service lists & provide 24 hr cover, as before. We've an arrangement with an Irish anaesthetist from Belfast to do one weekend a month to relieve us from our 1:2 rota. Out of hours cover, though not arduous, is obviously restricting. It includes time-consuming critical care transfers - we average one or two every month. Clearly, holiday & study leave can be problematic. As a rule we can't both be away simultaneously, although Dumfries colleagues have been very helpful recently. We have a commitment to regular (bi) monthly sessions at DGRI, though one of us has to cover Stranraer until the other returns.

Maintenance of skills, exacerbated by a reduced throughput of surgical GA cases, remains an issue. The logistics of a two-man department compound the difficulties involved in attempting to remedy the situation also. Another cloud on the horizon is the possibility of new "legislation" for anaesthetising children. This would severely further erode the service in Stranraer, particularly the considerable number of dental cases which would then have to make the 150 mile round trip to DGRI. On a brighter note, there are plans for a new hospital costing a staggering £6m, including redeveloping Dalrymple Hospital (Geriatrics). A full business case is completed, details of which include a new theatre/endoscopy suite. The surgical unit will be trimmed down somewhat (2/3 current capacity) in keeping with recent reduced requirements. It should be completed by 2004.

So what for the future? Who will take our place as Consultants in Stranraer in years to come? My own personal opinion is that, due to the recent changes & reduced attractiveness of such a post, recruitment will be difficult if not impossible. 24-hour anaesthetic cover (which undoubtedly saves lives - resuscitation of trauma cases, respiratory failure etc.) may become a thing of the past.

The public deserve a quality service, which is safe (of paramount importance) & involves minimal travel. This excludes major surgery and that which requires mandatory referral to tertiary centres. At present, I believe more could be done in peripheral units to service the patients' needs. Perhaps a change of political direction, &/or the development of more "generalised" surgeons, dedicated to peripheral units, may improve the current situation. At least, this must be the pipe dream. We live in hope!!

FORT WILLIAM & SKYE Wagih Antonios

Greetings from Lochaber! Here we have a cosy department of three consultants, Jim Mackay, Charles Leeson-Payne & myself; no juniors though. Our base is the Belford Hospital, working with three surgeons & two physicians to provide acute hospital services for a vast area of the West Highlands, stretching from as far South as Glencoe to Fort Augustus in the North, and West to Mallaig.

A population of 21,000 (multiply by 3 during holiday seasons), keeps us busy, anaesthetising for elective & emergency surgery, as well as resuscitating, stabilising, & transferring the seriously ill or injured - plenty of mountain trauma, hypothermia & RTAs here!), to intensive care and neurosurgical units, usually either Inverness or Glasgow.

We still have the time, though, to pursue our special interests, with Charles particularly enjoying the drama provided by A&E and high dependency, I personally prefer the challenges of chronic pain, and Jim opting for departmental organisation, which includes the agony of making a rota; he is a brilliant acupuncturist too.

FORT WILLIAM & SKYE

EILEAN DONAN CASTLE
WATERFRONT, FORT WILLIAM
OLD "BEN NEVIS" DISTILLERY
KYLEAKIN, FROM THE SKYE BRIDGE
AND THE HOSPITALS AT
FORT WILLIAM & BROADFORD

SKYE & OBAN

THE CUILLINS

BROADFORD BAY

LORN & ISLANDS HOSPITAL, OBAN
(photo - John Buchan)

We also provide visiting surgical services to Skye & Lochalsh at Dr. Mackinnon's Memorial Hospital, Broadford, serving a population of 14,000 which easily doubles during the summer holidays. The journey to Skye is a spectacular 85 mile drive which starts at Ben Nevis and ends at the Cuillins, passing through the viewpoints of Invergarry, the Five Sisters of Kintail & Eilean Donan Castle. We can safely claim we're one of Scotland's most picturesque anaesthetic departments.

Here we anaesthetise mainly for elective day surgery (1:3 rota) Emergency advanced airway management & care of seriously ill or injured in the Skye & Lochalsh area, is undertaken at present however, by a team of locum consultants, predominantly from Fife, supplemented by other volunteers, on a 24/7 basis.They also deal with the elective surgical list when one of us is on leave, and for this we are truly grateful. This arrangement is expected to continue till at least February, provided medical staffing at the Broadford is completed - (three staff grade hospital practitioners are currently in post; one more is needed; all have undergone training in airway management and would be happy to run the service without the help of the locum consultants). Meanwhile, long may we continue to enjoy the drive over the famous bridge! Wish you were here.

OBAN Jennifer Walker

Lorn & Islands District General Hospital, now part of the Argyll & Clyde Acute Hospitals Trust, has been operational for six years. Four years ago I was the first consultant anaesthetist appointed to the hospital, joining two limited specialists in providing anaesthetic services for North Argyll. We serve an area extending south to Campbeltown (two hours drive), east to Dalmally & the Black Mount, north to Appin and west to the islands including Mull, Tiree, Islay, Jura, Coll & Colonsay. Surgical and anaesthetic services experience considerable "summer pressures" with the influx of tourists. Workload averages 800 cases per year.

Elective work includes general surgery, orthopaedics, urology, oral surgery & dental lists. The theatre suite is well equipped and supported by an HDU - like other similar units there is a problem with adequate nurse staffing of appropriate skill mix. The obstetric unit is midwife-run, supported by local GPs. There's no routine anaesthetic input but we're called upon to anaesthetise the occasional operative delivery or manual removal of placenta The nearest obstetric unit is 87 miles distant. This can be a desperately slow drive on occasions – touring buses, caravans & cloth-cap drivers in the summer & difficult weather in the winter. For paediatrics, we send most under-fives to Yorkhill. A reasonable number of dental cases enable us to maintain skills to undertake occasional GAs in children for minor procedures like manipulations & suture of lacerations. We lack adequate specialist trained nurses & a paediatric pain service. It is an area that throws up a recurrent theme in the provision of services for rural areas, namely the balance between access to care & ever-improving professional standards.

There are many positive aspects to working in a small community. Hands-on clinical care is rewarding (& unforgiving if you get it a little bit wrong!!) as is the continuity of care. There can be a down-side however. Six months into my time in Oban, I was halted in my progress around *Tesco* to hear the strident voice of a very deaf farmer who had undergone trans-urethral resection of prostate some two weeks earlier. He was holding court in the vegetable section announcing the shortcomings of the new woman at the hospital who "didna' pit me oot". Fortunately subarachnoid block has become more accepted.

Not-infrequent but irregular trauma places a huge stress on our limited personnel & resources. Many require urgent transfer to tertiary services (usually Glasgow but also Edinburgh & Aberdeen.) A nationwide intensive care bed bureau could save a huge amount of time in organising these transfers. The duty consultant anaesthetist transfers all emergencies. The response time of the Glasgow shock team is such that they can help only with urgent cases. When available, air transport helps enormously; but even in optimal circumstances it takes at least 7 hours from start of resuscitation to return of the accompanying clinician to Oban. During this time there may be no other anaesthetist available in N. Argyll. High on my wish list for supports for remote & rural services would be a rapid retrieval system staffed by the tertiary centres. The concept of help coming by air while we intubate & stabilise the patient remains the stuff of dreams.

The shortage of skilled personnel also severely limits what could realistically be achieved in the event of a major incident. Taking plans from larger centres & simply scaling them down doesn't work. Without support from larger centres, two simultaneous serious cases & we're stretched. We are definitely that small rural hospital alluded to in the introduction to the ATLS course. I enjoy teaching ATLS - it provides invaluable opportunities to network. My teaching also involves assessment of our local ambulance paramedics. This has been especially productive in fostering relationships that continue into the resuscitation room in A&E.

WESTERN ISLES Andrew Hotherall

THE TOP LEFT HAND CORNER OF THE WEATHER MAP

"Just jot down a few words on the back of an envelope when you have a free moment", he said, this in the run up to the annual Christmas Pantomime, for which, this year I had the dubious privilege of wearing the Director's hat. How could one possibly do justice to such an undertaking in such a brief manner?

The differences between "anaesthetic" practice in the Western Isles and in Ivory Towers are, I am sure, far more numerous than the similarities. We put people to sleep, often wake them up again, do regional blocks, pain clinics, obstetric analgesia, but as the list unfolds we are already in areas where the location puts its own special slant on practice. Then there's the meetings.

Historically, Stornoway has had a consultant anaesthetist since at least the early '70s. (While a Glasgow S.R., I did a locum here in 1978). This reflects a long-standing attitude within the islands of ploughing our own furrow rather than depending on mainland sources for the provision of services. Outsiders think of the islands as being backward. In fact, the local attitude is aggressively modernistic, to the degree that babies are frequently disregarded when the bathwater is being changed.

To a degree we are held back by our continuing status a Directly Managed Unit under the Health Board, though all health boards are in a state of flux at the moment. While everyone else now regards the word "Trust" as part of their active vocabulary, and has become accustomed to the theoretical rights to independent negotiation this implies, we are still bound to Whitley Council Terms & Conditions. This has a theoretical protective effect, but no-one any longer has much interest in re-negotiating these conditions, and for the most part recent changes have been to our detriment. We have, however, been largely spared the extremes of financial constraints suffered by mainland units over the last ten years. The timing of the opening of the Ospadal nan Eilean provided a very welcome injection of cash & equipment at a time when others were feeling the pinch at its worst.

The meetings. In my days at the Western I developed a fine technique of suddenly becoming intensely interested in my shoe-laces whenever volunteers were being sought at Divisional meetings for other hospital committees. Until I arrived here as a single-handed consultant, I had never appreciated the amount of work the Department did on my behalf. The administrative workload for a one-man department is remarkably similar to that for a thirty-something strong one. If you don't get involved in the politics, there's no-one else to do it better, and you only have yourself to blame if you get walked all over. This leads to a heavy drain on "free" time, lots of sleepless nights, and an inevitable commitment beyond what you ever intended. Those who know me of old will appreciate the incongruity of me attending meetings with the C.M.O. in Edinburgh!

The workload itself is unique. "Fixed Sessions" have little, if any, relevance to a one-in-two rota. There is no problem with consultants skiving off to do private work; there isn't any. There are no anaesthetic trainees, which on the whole I regard as a plus, given the difficulties other specialties have in recruiting suitable junior staff. Without doubt a 1:2 rota is oppressive, but, bearing in mind the rarity of call-outs at anti-social times, the presence of junior staff would help little in reducing the need for availability. This need pervades your entire life-style.

Finding activities to fill the on-call hours which are sufficiently absorbing to displace worries of work, but yet can be dropped at a moment's notice, becomes a high priority if one is to avoid the temptations of alcoholism or, worse, daytime television. (Satellite TV was never considered naff here). Hence the Pantomime. "Don't you get bored with nothing to do?" is a frequent question. In fact I have never been so busy in my life. It is often necessary to reassess the priority of one's so-called leisure commitments. It is easy to find yourself double booked for every night of the week, except of course the sabbath.

Unfortunately you can never feel completely free. For instance when urgent evacuation to a mainland provider with an anaesthetic escort is required your off duty counts for nought, unless you have taken suitable steps to be unfindable, such as hiding up a remote sea-loch in the boat. After a time, the constant tension of availability fades into the background, a bit like the smell of an old geriatric ward. You only become aware of it (the tension, not the smell) again when you feel the relief of the aircraft leaving the ground, or the ferry leaving its berth, and for a few hours after return. If I ever get round to writing the book we are all said to have in us, I've thought of calling it *"Prisoner in Paradise"*, but I suspect I may have been beaten to that title. Fortunately surgeons, once they have settled into our way of life, are no more anxious than we are to operate at four a.m.

Frequently one has to stand up and be counted. We have two obstetric units in the Western Isles, one here in Stornoway, run by two Consultant Obstetricians, and a midwife run unit at the new Ospadal Uibhist agus Bharaidh in Benbecula. We are seriously worried lest the annual delivery rate in Stornoway drop to 200 (it was over 300 ten years ago). This makes our viability, with Royal Colleges talking about a minimum of 2,000 deliveries per year, dependent on innovative thinking. Plainly it would be ridiculous to provide 24-hour dedicated anaesthetic presence in these circumstances, but are women therefore to be denied the benefits of modern analgesia?

It is my contention that even when I am on call from home, four minutes from the hospital by bicycle, my availability to obstetric patients is still greater than that of an SpR in theatre with an emergency section. Of course, the predictably high-risk obstetric cases are sent to centres of excellence in plenty of time, but the importance to women of being able to deliver on their own island should not be underestimated. The disruption to family life for couples parted for the last month of pregnancy is extreme. This is reflected by the seven or so patients who opt for the hazardous choice of delivery in Benbecula every year. Mercifully few stand on their rights to home delivery in these extreme rural situations, but contingency plans still have to be in place, even though the expense involved can be crippling. Similarly the provision of "proper" intensive care facilities with the anaesthetic staffing available is nonsensical. The need is too sporadic. While some may find this frustrating, I have come to regard the service offered by the Western Infirmary Shock Team as riches beyond the dreams of avarice. I am able to practice most of the fun bits of Intensive Care and leave the boring bits to those with the ongoing experience to cope with them best.

Another side to the coin is the ability, in these days of super-specialisation, to continue to be a real Doctor. There is plenty of opportunity to be involved in patient care from beginning to end, almost from the cradle to the grave. Again, if the impersonal nature of modern medicine is your cup of tea, then this is not for you. Perhaps I should carry my log book with me at all times to record all the thanks & compliments I get during my post-op rounds in *Safeway* or the *Co-op*. When I had been here for a month, I went away for a diving holiday, and there were three ex-patients on the ferry with me; I calculated that if I did 1,000 anaesthetics a year for 20 years I would have done them all!

There is nowhere near the space required here to start a description of the religious divide in the Islands, but it has led to the need to maintain a separate facility in the Southern Isles at inordinate expense. In fact, as far as this facility is concerned, we were shot in the foot by the magnanimity of the incoming New Labour administration. We were one of the first projects to go through the PFI hoops & (much to our surprise) it had been quite successful. The bulldozers were almost set to roll when Sam Galbraith, in a flush of post-election exuberance, announced the project would be directly funded. We soon discovered this meant we had to re-tender, the new contract going to a local firm. Guess who had the intellectual rights to the plans for the new development? Not the local firm. It set us back at least a year.

In Benbecula there now exists a thorny problem. It is politically necessary to maintain a General Surgery service there. Traditionally G.Ps or locum consultants provided the Anaesthetic component of this. This leads to the anomalous position where probably the least qualified unsupervised practitioners man the most exposed anaesthetic practice in Britain. Finding a solution in these days of increasing accountability (whatever that means: I've always considered myself accountable for my actions) proves to be much more of a problem than might be imagined. It has certainly occupied much of my mind for twelve years with little sign of imminent resolution. How do you provide meaningful supervision to someone eighty miles away by air or sea in the face of adverse weather conditions?

C.P.D. is another centrally imposed hoop that we have to go through. Don't get me wrong, continuing post-graduate education is well recognised as vital for us in our remoteness and (touch wood) there has been little difficulty in continuing adequate funding for attending mainland meetings, no mean feat when it is remembered that the air fare to Glasgow is around £300 and agency locums cost several arms & legs. A nonsense is the GP-orientated meetings necessary to sleep through in order to chalk up the requisite number of "local" points. Fortunately flexibility is now allowed to substitute some "away" points for "home" ones. I personally find locums invaluable in seeing how the other half really lives. Iceland in January is amazing.

Recruitment in all specialties is a severe problem. There are few of us who are here out of choice, and super-specialisation has further depleted the numbers on the specialist register with sufficient versatility to be effective here. A glimmer of light at the end of the tunnel comes from a central recognition of our needs in the form of a Remote & Rural Areas Resource Initiative (RARARI), though its funding needs to be vastly increased.

The Island way of life can become oppressive, but when it does it is only necessary to visit the mainland for a few days, with its traffic jams, air pollution, speed cameras, noise, burglaries, burglar alarms, Big Issue sellers & illicit drug-related problems, to be reminded how well off we & our children are.

And it is a wonderful starting point for cruising to Scandinavia. Oh, and by the way, I still don't have a secretary . . . .

WICK Len Henderson

I did not want to write how wonderful it is to work in a Peripheral Hospital because for a lot of doctors it would not be. Equally I did not want to go on about the lifestyle advantages of living up here because there are a lot of disadvantages too, which are pretty self evident. I thought in the end I would write about the real problems that patients & doctors face up here, many completely outwith our control. In explaining to other hospitals when trying to transfer patients, it is the junior doctors who are the most helpful and sometimes the Consultants who are the least understanding. I hope if they read what I have written they may be more helpful. I hate transferring patients and certainly don't do it to get a good nights sleep.

Caithness General is the most northerly hospital in mainland UK 110 miles from Highland's main acute hospital in Inverness. It was built in 1986 to replace older hospitals in Thurso & Wick. Obviously it's a small hospital with only 86 beds, split between medical & surgical wards, maternity unit, rehabilitation unit and A & E. There's a 10-bedded Day Case Unit & a 3 bed HDU/CCU. We have only 21 doctors working here: three Consultants each in Medicine, Surgery, Obstetrics & Anaesthetics & nine SHOs. The SHOs have a 1:4 rota but Consultants are on 1:2 or 1:3 and the Obstetricians & Anaesthetists are also first on-call.

Although it has been said by a Consultant south of here that *"only oddballs & alcoholics would work in Wick"*, with that sort of on-call commitment it's not that easy to be a full-time alcoholic. As for the oddball bit, it has been known for me to go home for sex during a coffee break.

On-call workload is highly variable. Many weekends there are no cases at all, but at other times you could be up all night with a ventilated patient before they are transferred elsewhere. To compensate for on-call frequency, daytime workload is usually light. Waiting lists are short, so there's no pressure to squeeze in extra cases on lists, which consequently hardly ever over-run. When surgeons go on holiday, their sessions are often not used and, if there happen to be three anaesthetists there at the time, it's quite possible to do only one list in a week. Currently ENT, Orthopaedic & Ophthalmic patients have to go to Inverness. I'm sure it would be feasible for some operations to be done here by visiting Consultants, who could utilise slack in the system. Any patient who might need ventilatory support or full ITU facilities post-op. are sent to Inverness for surgery.

This leads to the three current big problems with working in a relatively isolated unit. Firstly, Intensive Care. Whilst aiming to transfer sick patients whose clinical conditions are deteriorating *before* they need to be ventilated, this is not always possible. We do not have staff or resources to ventilate patients for more than 24 hrs. Between 12 & 20 patients a year, mainly head injuries or respiratory failure, have to be transferred to a specialist facility accompanied by anaesthetists. Our nearest ITU is Inverness, 21/2 hours away by road. If there are no beds available there, Aberdeen, 5 hrs away, is the next port of call; then Dundee, Edinburgh & so on. Anything south of Berwick & it's quicker to go to Oslo! Weekends are a big problem, when there are no other anaesthetists in Caithness. Leaving the hospital & Maternity without an anaesthetist is clearly not ideal.

Even air transfer is not straightforward. Though certainly the quickest, getting back to Wick may be a problem (a taxi from say Edinburgh is pretty tedious & expensive!) What I try to do is find a sympathetic hospital that has an empty ITU bed & can spare an anaesthetist to retrieve the patient. If that is not possible, then if I use the Orkney air ambulance & can transfer care over to the receiving anaesthetist at the airport, I can hitch a lift back here. When the airport is closed due to fog, snow or gales, and road is the only option, you'll understand why I take holidays in winter.

With only 250 deliveries a year, our Maternity was under threat of losing its Consultants & being replaced by a midwife-only unit delivering 80 low risk cases a year, but a recent service review decided to retain Obstetricians here. A strong local campaign to keep the status quo coincided with cancellation of a visit by the Scottish Health Minister due to bad weather & suspension of flights at Wick, which brought home how tenuous evacuation routes are should things go wrong with even low-risk cases. Even in my short time here, I've been involved where maternal & foetal mortality were certain, but for local obstetricians.

A recent problem has been the suspension of our G.A. service for 120 paediatric dental cases a year, following a directive from the Scottish Executive; the main reason given being the lack of paediatric nurses & Paediatrician. Well that's fine, but we *can* still do paediatric surgery - circumcisions, herniotomies & the like. On the day this service was suspended, I dealt with an unconscious 5 year old with a head injury following a R.T.A. Dental patients now have to make a 220 mile round trip, sometimes as day cases, on a road with several fatalities a year - all in the name of safety and *we're* supposed to be the oddballs?

There is no doubt that, with the drive for centralisation & increasing subspecialisation, small peripheral hospitals are seen as an unsafe, expensive nuisance to planning. I have suggested in meetings that one way to resolve the Maternity problem would be to compulsorily sterilise all women over the age of 15. If girls want a baby, they are available to buy on the Internet. *(This may well still be on a file somewhere awaiting consideration!)*

People are not forced to live up here: they choose to be here for all the perceived lifestyle advantages. People are not stupid: they realise that, in many cases, provision of health care in the peripheries cannot offer a full service and they accept that. It may be difficult for many people in Medical Management and the Royal Colleges to believe, but local people's wishes *are* important. They don't like being told that it's better & safer to go a long way away for treatment, when they have been used to and accepted the very same treatment locally for years.

ORKNEY Colin Borland

Orkney is an archipelago of 17 inhabited islands & a resident 20,000 population Agriculture is the main source of income, closely followed by tourism with archaeology, ornithology & recreational diving the main year-round activities. Orkney's visitor calendar includes a strong cultural element. There's folk music, the internationally-renowned St. Magnus Festival featuring classical music & drama, a science festival, as well as opportunities to focus on Orkney food & beer. A "blues" weekend is the new kid on the tourist block.

The challenges & rewards of working in Orkney are in finding a personal niche which balances multi-faceted leisure opportunities with the need for a wide range of anaesthetic demands provided from a small (but about to expand!) anaesthetic workforce. On occasions the demands of working in a distant location are unusual, to say the least.

For example, I was on the scene last year to deliver a baby who decided to be born in the hospital car park. While this happy event achieved local & national media coverage, "maternity cover in hospital car parks" is not expected to appear in the new Consultant's job description!

Secondary-healthcare facilities are based in the Balfour Hospital in Kirkwall. The current Anaesthetic Department comprises a full-time Consultant, Colin Borland and a part-time G.P. Specialist, Colin Rae. The two Colins are at present looking for a second Consultant to join a service which has evolved over 10 years from four GP Anaesthetists who in earlier years supported a single-handed Consultant Surgeon.

Two full-time surgeons now undertake a wide range of elective procedures, including laparoscopic surgery, upper & lower GI endoscopies, hip fractures as well as the "routine" general surgery which is every gasman's bread & butter. Day surgery is 70% of the workload, while up to 10% of the surgical population comes from paediatric patients. Dental colleagues put in an appearance twice a month in an attempt, or so it seems at times, to ensure Orkney can be declared to be free of impacted wisdom teeth! Visiting specialists also undertake elective surgery in Kirkwall, giving rise to a regular provision of anaesthesia for Gynae, Ophthalmology, ENT & Oral Surgery. There have also been requirements for ECT & cardioversion.

Air ambulance escorts for transfer to hospitals on the mainland of seriously ill adult & paediatric patients mean that both anaesthetists have become acquaintances of the interiors of fixed-wing air ambulances (Britten-Norman Islander & King-Air) as well as that of "Oscar Charlie", the coastguard helicopter.

A recent development for island-based cardiac rehabilitation has been my involvement in supervising exercise-ECG sessions, under the guidance of Aberdeen cardiologists. Time is also given on non-theatre days to running a Pain Clinic and to teaching resuscitation to hospital staff. Proposed junior staff changes mean that approved training for GP-trainee SHOs is on our horizon, resulting in new opportunities for regular tuition and mutually-beneficial CPD.

A £5.5m development recently opened on the Balfour site, giving us a new, purpose-built Theatre Suite with adjacent Radiology & Laboratories. Our only regret is that it's the laboratory staff who occupy the upstairs level with spectacular, panoramic views of Kirkwall & the isles beyond! A further £10 million new build is planned. Readers will not be surprised to hear that our Department has already started negotiating for a rest room with a view!

SHETLAND Russell Rarity

"Where did you say you're going?" "You must be mad!" "You can do better than that!" "You'll never get a job elsewhere if you take that one!" Those were just a few of the comments that greeted me when my consultant colleagues in Oxford discovered that I had applied for a post in Shetland. Some of them had found it difficult to move the 40 miles north from London so found it impossible to comprehend that one of their own could even consider moving to Scotland, let alone going to the northernmost outpost of the United Kingdom. After all, there wasn't any private practice, it was further than Milan and as for the weather.....

So why Shetland? Why discard the opportunity of a safe, sensible job in a large teaching hospital in favour of an unknown unit with a 1:2 rota and no junior staff? I suppose there are many answers, but if I were to be honest there were two main reasons: the challenge of doing something new and the desire to escape the straitjacket of the well-defined mainland job.

It was actually my wife who saw the advert in the BMJ and who, knowing me better than I knew myself, sent off for the information pack & recruitment video. I still remember sitting down at the dinner table & being amazed at the clinical freedom outlined in the job description and then watching the video, enthralled by the scenery & the sincerity of the people that had chosen to work there. It was such a change from the predictable routine of my Oxford anaesthetic life. Two days later, after a number of phone calls and a few favours called in at the department, the whole family was on its way to see if Shetland was as good in real life as it had seemed when viewed on the TV in an Oxfordshire cottage. Things moved fast from then on, and it wasn't long until, in late November 1998, we shut the door in Oxford for the last time and started the long drive to Aberdeen & the 14 hour ferry journey to Lerwick, in order to become the first Consultant Anaesthetist in Shetland.

Anaesthesia had existed in Shetland for many years prior to my arrival, so I wasn't starting completely from scratch. GPs had historically given anaesthetics for decades and, with little formal training, had provided a service that had stood the test of time. However their time as unsupported practitioners had come to an end and my job was to build a consultant service: the master plan was to replace the four GPs with two consultants and to develop anaesthetic services that would compare favourably with those found in district general hospitals elsewhere. It was just a matter of finding a colleague and getting on with the job.

However initially there were a few things to do as I found out when, rather naively, I walked into the theatre suite on the first morning and asked to be shown to the anaesthetic office. "We don't have one!" was the reply, "We've never needed one, but I think that there was a room allocated on the original theatre plans. The surgeons have always used it for dictation and they won't be happy to give it up." So, after doing the list, my opening task was to reclaim that lost room and then to ask for a desk, chair, PC and everything else down to the last paperclip. To my surprise, it all arrived without so much as a twitch of a finance manager's eyebrow.

My first 4 months were spent working every day & every night bar Tuesdays, when the two remaining GPs took it in turns to provide anaesthetic cover for the list & for emergencies. Tuesdays were my day off, but that was more theory than practice except that it was possible to have a drink in the evening. As I became familiar with the working practices that I had inherited, it became more & more obvious that change was needed but there was an environment where, with little encouragement, change would be welcome. I'll give you an example:

As the first operation on my first list drew to a close, I asked the anaesthetic nurse to send for the next patient. I thought no more about it until I walked back into the Anaesthetic Room having taken my patient to Recovery. It was empty. I asked why. I was told that it was theatre practice not to send for the next patient until the previous one had returned to the ward. As you might imagine, I was somewhat surprised. I inquired further & was rather bemused to find out that they had been caught out a number of times needing urgent help in Recovery whilst the G.P.-anaesthetist was busy inducing the next patient.

Luckily there hadn't been any major disasters but they had decided not to take any chances and, as patient turnover had never been an issue, the pragmatic approach had been to allow only one patient in the theatre suite at once. However I was reassured that, should I continue to leave patients in recovery in such a condition that they did not require rescue analgesia, anti-emetics or airway management, the nursing staff would be only too happy to permit me to anaesthetise a patient before the previous one had left the suite...

By the time my colleague joined me from Nottingham in April 99 this was a thing of the past. Patients were seen by the anaesthetist on the ward rather than in the Anaesthetic Room, they woke up quickly and were ready to go back to the ward without nursing staff having to do much more than complete the paperwork. The staff had stopped documenting the number of times patients had been sick, as they almost never were, and the ward had stopped complaining that there were too many patients coming back requiring continuous airway monitoring; post-operative pain control was not a problem and the stream of patients requiring admission after Day Surgery had dried up.

With two of us in post things really started to change. Now, two years later, anaesthetic services are virtually unrecognisable from what they had been previously. We've retained a single GP, who now does two supervised sessions & one on-call a week, but otherwise provide consultant-delivered care. Between the two of us we've set up a pre-assessment service, an HDU and a chronic pain clinic, introduced regional anaesthesia & analgesia and transformed obstetric anaesthetics as much as possible.

We have produced resuscitation guidelines and run resuscitation training for all hospital medical staff, training nursing staff to use AEDs as an integral part of arrest procedures. We play a major part in the running of A & E, and have standardised monitoring across the majority of the hospital. We support our medical colleagues in the management of sick children and GPs in neonatal resuscitation.

We have devised acute pain guidelines which are now employed without exception in the Surgical Unit, and it is now the norm for patients to be seen sitting up in bed chatting to friends and family within a few hours of an anterior resection, courtesy of Sevoflurane and a thoracic epidural. Day Surgery patients now all go home on the day, sometimes travelling for two hours, and a recent telephone audit failed to reach a substantial proportion because they had felt well enough to return to work within 24 hours of their discharge.

We still have no ICU and cannot envisage ever having one, but now the process starts here & continues in transfer rather than the patient having to wait to get to the mainland in order to have anything much more than basic airway & circulation support. As a result, our "local" ICU 180 miles away in Aberdeen is very much less despondent after receiving a call from Shetland than it used to be. We do not offer an on-demand epidural service in maternity but, given that there's no on-site obstetric or paediatric service, we feel that to do so would be unwise. All in all we have done what we were asked to do.

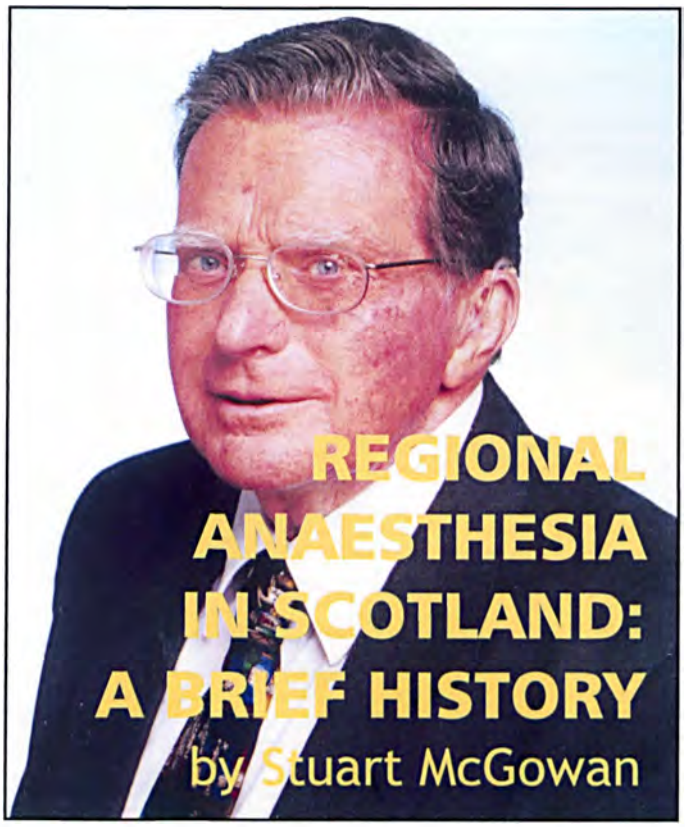
And what of the other things? Well - we sail, fish, play sport, spend time with our families (call-outs are relatively infrequent), and travel all over the Northern Isles & venture over the sea in small planes, helicopters & lifeboats in the course of our work both for the Health Board & for the Air-Sea Rescue. There are no early starts & few late finishes, so our young children see us in the mornings & before they go to bed.

Our families enjoy the freedom, the air, the scenery, the schools & sports facilities and do not miss shopping malls, trees & take-away pizza. We live well, and are known & respected by a community that accepts us for what we can contribute and does not regard us as "incomers". Recently we were told of vacancies in a Scottish teaching hospital - were we interested? We're still here, and here we'll stay.

We may be looking for an additional colleague in the near future ----- any takers??

THE SCENIC DELIGHTS OF ORKNEY & SHETLAND

HOY IN WINTER
RACKWICK BAY
LERWICK
SKERRIES
& SCALLOWAY



REGIONAL ANAESTHESIA IN SCOTLAND: A BRIEF HISTORY

by Stuart McGowan

Today regional anaesthesia is well established as the method of choice for many operations in obstetrics, gynaecology, urology, orthopaedics & ophthalmology, as well as in general surgery.

It is accepted by patients who appreciate the lack of side effects and who enjoy the early mobilisation & sense of well-being. It is popular with surgeons & anaesthetists because it provides total analgesia, excellent relaxation, improved blood flow and the ability to control blood pressure & blood loss.

This happy state of affairs did not always exist. The development of regional anaesthesia was slow & spasmodic in the beginning. This was due partly to the lack of suitable local anaesthetic agents, partly to ignorance of the physiological principles involved and, at one period of time, alarm at the possibility of neurological sequelae.

For the first 20 or 30 years of the twentieth century, regional anaesthesia was the domain of the surgeon. Carl Koller had discovered the anaesthetic properties of cocaine in 1884, but it was not until 1898 that August Bier in Kiel and Theodore Tuffier in Paris induced the first successful clinical spinal anaesthesia.

Among surgeons in Scotland who experimented with this new technique were J. Hogarth Pringle & J. Mill Renton in Glasgow and Alexander Don in Dundee.

Cocaine was quickly superseded by stovaine (1904), procaine (1905) and tropacocaine which were synthetic agents & less toxic than cocaine. Initial enthusiasm for spinals was soon diminished by the increased mortality and attendant headache & hypotension. It was many years before the cause of spinal headache was realized. In 1909, the British Medical Journal reported 33 cases in which paralysis of an ocular muscle had followed spinal anaesthesia.

Not surprisingly the Scottish anaesthetists like Thomas Luke (Edinburgh) & David Lamb (Glasgow) had reservations about the new technique and declared that general anaesthesia, when given by skilled anaesthetists, was safer.

Apart from spinal anaesthesia, regional techniques gained in popularity. Bier described his method of intravenous regional anaesthesia in 1908 and this was popular for a time in several Scottish hospitals, using procaine. Bier visited Edinburgh in July 1909 to give the Cameron Prize Lecture on his technique. In the 30's & 40's procaine continued to be the most widely-used local anaesthetic agent. Its main disadvantage was the short duration of action. New longer-acting drugs came onto the market such as amethocaine in 1928 & cinchocaine (nupercaine) in 1929.

Spinal anaesthesia enjoyed a new lease of life & became popular. Nupercaine was favoured for spinals and could be given as a heavy solution (1 in 200 with 6% dextrose) or a light solution (1 in 1500 in saline). Nupercaine would provide analgesia for 60-90 minutes whereas procaine lasted only 30-45 minutes. In 1947 lignocaine was used clinically for the first time. It provided such excellent analgesia that one would have expected regional anaesthesia to blossom.

Unfortunately the tragic events of 13th. October 1947 in Chesterfield Royal Hospital cast a shadow over spinal anaesthesia in Britain which lasted almost 15 years.

The Woolley and Roe Case

On that day two patients undergoing surgery under spinal anaesthesia on the same operating list developed paraplegia. Cecil Roe, aged 45 years, was operated on for a displaced semilunar cartilage and Albert Woolley, aged 56 years, for the radical cure of a hydrocele. The anaesthetist gave both patients 10mls. of light nupercaine.

Their condition subsequently was pitiful. Confined to a wheelchair, unable to dress themselves without assistance, they had little or no control of their bowel & bladder function. Further investigations showed they'd developed adhesive arachnoiditis with cyst formation.

They sued the Ministry of Health as trustees of the hospital, Dr. J.M. Graham, the visiting anaesthetist and Messrs. Ciba Ltd., the manufacturers of the drug. The trial took place six years after the event, in October 1953. The judgment delivered by Mr. Justice McNair exonerated the anaesthetist and the hospital. It was accepted that the paralysis was caused by small quantities of phenol (carbolic acid) solution, in which the ampoules had been immersed as a sterilizing agent, entering through small invisible cracks in the glass into the nupercaine solution. It is ironic that the Chesterfield anaesthetists had only recently instituted the use of phenol to sterilize ampoules. Prior to this, no sterilization of the ampoule had taken place, and the change to immersion in phenol was adopted as a precautionary method to avoid sepsis.

A recent reassessment of the Woolley & Roe case has shown that it was unlikely that the phenol was the cause of the post-operative paralysis. Therapeutic injection of phenol for chronic pain does not give rise to the same clinical picture. A much more likely explanation is that the apparatus used was sterilized by boiling in a sterilizer which had been contaminated with acid substances used to prevent scale formation. One beneficial result was that cold chemical sterilization became a thing of the past. Autoclaving was universally adopted as the method of choice for sterilizing ampoules. Disposable syringes & needles became available in the early 1960s.

The Renaissance of Spinal Anaesthesia

During the late 1940s and the 1950s, spinals were largely out of favour, more so in England than in Scotland. This was not solely due to the fear of litigation. Improvements in general anaesthesia with intravenous induction agents, muscle relaxants and the introduction of halothane tipped the balance for most anaesthetists. Epidurals, caudals & other regional techniques gained in popularity.

There were however a few Scottish anaesthetists who kept faith with spinal anaesthesia. Among these were H.W. Griffiths & John Gillies, who in 1948 published their technique combining high or total subarachnoid block with general anaesthesia for the purpose of reducing operative bleeding. Prior to this, the hypotension that accompanied spinal block was considered to be an undesirable side-effect. This technique never achieved great popularity, and with the introduction of hypotensive drugs such as arfonad & nitroprusside it became obsolete.

Frank Holmes, working in the Simpson Memorial Maternity Pavilion in Edinburgh, made a significant contribution to the understanding of circulatory collapse during Caesarean Section under spinal anaesthesia. He was the first to recognise the importance of occlusion of the inferior vena cava by the pregnant uterus and recommended the use of a long sandbag under the patient's right side. His writings between 1957 & 1960 drew attention to the supine hypotensive syndrome.

The general acceptance of spinal anaesthesia began in the 60's and 70's. Reports were being published in America, Europe & India of tens of thousands of spinals without neurological sequelae. The greater availability of intravenous solutions (Ringer lactate, saline & dextrose) to control blood pressure, gradually dispelled the anxieties of anaesthetists. Spinal needles improved in quality and whereas 18, 20 & 22 gauge needles had formerly been used, 26 & 29 gauge needles were preferred. Spinal headaches became much less common.

Research in Glasgow, by Douglas McLaren & Peter McKenzie among others, showed the clear superiority of spinal anaesthesia over general anaesthesia for elderly patients with fractured neck of femur. Not only was the mortality lower in the spinal group, but oxygenation was better and thromboembolism reduced.

In obstetrics, spinals overtook epidurals as the favoured technique for Caesarean Section in the 80's & 90's. Following the discovery of opiate receptors in the spinal cord in 1979, trials of intrathecal opiates began, usually combined with a local anaesthetic such as bupivacaine. Late respiratory depression was a worrying side-effect which necessitated close monitoring of these patients for some time thereafter.

Epidural Anaesthesia

Although lumbar epidural anaesthesia had been described as long ago as the 20's, its popularity in Scotland began only in the late 50's. Among the early enthusiasts for the technique were Bruce Scott in Edinburgh, Donald Moir in Glasgow and Ian Lawson in Dundee. The availability of lignocaine (1947) and bupivacaine (1963) ensured good results.

Having familiarised themselves with epidurals in general surgery & gynaecology, the next step was to apply the technique to the relief of pain in labour. This was commenced in most centres on a selective basis, the top-ups being given by obstetric housemen and later by trained midwives. The problem of setting up a complete 24-hour epidural service in the labour suite was a logistic one. It was first achieved by Donald Moir in the Queen Mother Hospital in Glasgow in 1964. In Dundee, where staff levels were historically low, this was not achieved until ten years later under Melville Milne.

Epidurals already established for pain relief in labour could provide anaesthesia for Caesarean Section and this method gradually replaced general anaesthesia. From about 1980 onwards, spinal anaesthesia made its reappearance for Caesarean Section. Douglas Arthur described the use of epidural anaesthesia for paediatric surgery at Yorkhill in 1979.

Other Regional Techniques

Nerve blocks to provide analgesia for surgery and the control of pain have become increasingly more popular since the introduction of lignocaine. In 1952 Howard Bruce Wilson & Helen Gordon in Aberdeen described the technique of anterior brachial plexus block with paravertebral blocks for thoracoplasty patients. Donald Moir preferred the axillary approach to the brachial plexus to avoid pneumothorax in 1962. Sciatic & saphenous nerve blocks for operations on the lower limb are among methods used by Bill Macrae in Dundee.

Leading Lights

It would not be possible to mention all those anaesthetists whose enthusiasm for regional anaesthesia has led to its current popularity. Donald Moir, Isobel Kirkwood & John Thorburn in Glasgow; Mike Tunstall in Aberdeen; Ian Lawson, Mel Milne, Bill Macrae & Tony Wildsmith in Dundee come readily to mind.

But the doyen of them all must be Bruce Scott (1925-98), Consultant Anaesthetist in Edinburgh, President of the Obstetric Anaesthetists' Association & founder President of the European Society of Regional Anaesthesia. He did more than anyone to promote & foster the development of regional anaesthesia and was closely involved with Astra Pharmaceuticals, who endowed an annual Clinical Research Fellowship for a Scottish anaesthetic trainee.

In addition the Astra Clinical Research Unit was established in Edinburgh. Local anaesthetic courses were held annually. It is hardly surprising that the Registrars' Prize, awarded by the Scottish Society of Anaesthetists, was won, with few exceptions, by Edinburgh trainees from 1979-1987. Their subjects all related to regional techniques.

Bruce Scott was an inspiration to all anaesthetists in Scotland & abroad. He'll always be remembered as such.

This account of the development of regional anaesthesia in Scotland is by no means comprehensive. It reflects my personal perceptions and reminiscences.

THE PUFFER

IS NOW CONVERTED TO SERVE AS

THE TIGHNABRUAICH CENTRE FOR AMBULATORY SURGERY

EPISODE 6: THE COLLEGE VISIT

Only snippets of these recent conversations from Captain Para Handy's Cabin have reached us but we have no reason to doubt their authenticity and reproduce them for the interest of Members

CHARACTERS

Para Handy: Former Skipper, now Chief Executive Dougie: Former Mate, now Anaesthetist
MacPhail: Engineer & Distiller, former Anaesthetist, now occasional Surgeon Sunny Jim: Ship's boy, Ward Charge Nurse
Prof. Ian Power & Dr. Stuart Ingram - Distinguished R.C.A. Visitors (who ask the questions)

Captain Handy, tell us about your boat becoming an ADC.
Well our transporting days & the fishing were over, so when we saw Susan Deacon's advert about cutting waiting times in the *Glasgow Herald*, we decided to go for it. The boat's been carefully adapted & we got an awfully big grant from the Scottish Office. Do you know they are now so interested in the project that six MSPs want to have their constituency offices here. They don't have to be here in person (except perhaps with a lassie at the weekend) just their faxes & e-mails - MSP@kylesofbute.com

The Wheelhouse has superb natural ventilation & a magnificent 360° panorama-naturally this is my management office, just like in a real hospital. The Boiler Room is cramped, really hot & sticky, a bit noisy and has no windows, so it's ideal for the theatre staff. Patients are admitted to the old crew quarters: they arrive fore in the forenoon then go aft efter to sleep it aff. Are ye following me, Professor?

Sure, Captain. Now where did you get your theatre table?
From a boy up at the pub in Lochgilphead.
And that diathermy apparatus?
From a boy up at the pub in Tarbert
That's a fantastic rotating theatre light you've got there?
Aye, I got it off that buoy . . .
That boy up at the pub, I suppose?
Naw Professor, that buoy out in the Minches. You know, where the big Liberian tanker ran aground last week . . .

What's your most distinctive Ventilator made from, Dougie?
MacPhail made it from an ancient tumble dryer hitched up to Mrs. MacPhail's old Hoover. It works a treat. I'm just glad you didn't do what Professor Strunin did - he asked MacPhail if she worked as a bag & bottle. MacPhail got really really upset - he thought that the Prof. was getting personal about Mrs MacPhail. And, before you ask, there's never ony worry about bugs or these wee bastard prions in *our* breathing circuits. Nothing could possibly survive wi' all that stoor & engine oil, you know.

Do you use Laryngeal Mask Airways, Dougie?
No, we really couldn't afford to buy these Rolls Royce ones, but MacPhail just engineers them from a hosepipe & a bit off a old life jacket. Ach, we thought they were OK till old Jock Shepherd swallowed the business end - it didna' do him ony harm, but he said he had an epic clean-out in the next 48 hours!

What do you give for Anaesthesia, Dougie?
The gases are no problem. We aye ken the laughing gas is in the blue cylinders. It's easy to remember because that's the one that makes the patients turn blue. We had terrible difficulties with the oxygen cylinders - ye ken the ones in St. Mirren colours - because Sunny Jim got the oxygen mixed up wi' the oxyacetylene that McPhail uses for his welding. Heavens, what a bang they made that day! He had blue flames shooting oot of his troosers! I'm the anaesthetist now - I trained in the Hebrides. It used to be MacPhail - he just used to breathe on the patients, but unless it was early in the morning (when he was a fire risk) that tended to be a bit unreliable. And he kept shouting "Mair steam!" (because he's aye down that) and the patients got a bit concerned wi' that!

What do you use for keeping them asleep?
MacPhail's pot-still goes over to Isoflurane production every Sunday, because we canna make Whisky on the Sabbath - you know he makes a very passable Talisker when he gets the temperatures right. If it's a bit off, you get a hoor o' a headache. Same wi' his Isoflurane-patients woke up wi' stoatin' hangovers

Do they all get Inhalational Anaesthetics then?
Not now. We tend to do a lot of Total Intravenous Anaesthesia, as we can aye get the Propofol cheap. Ever since MacPhail winched Gavin Kenny's Morgan oot o' the ditch, we've gotten a regular consignment doon the watter frae HCI, just for our trouble & discretion. Evidently Gavin's global-positioning device lost its loop connected to the steering & brakes and he drove straight into the bog just round frae the Kyles. And what a fine lad his old sidekick Nick Scott is too - you know he always recommends us to any poor flunkies travelling wi' those rich Arabs going to HCI, if they're needing a hernia, a vasectomy or something else done - we've looked after a chauffeur and a couple of security men. Nae bother - we just send up jist a case of MacPhails Talisker at Christmas to oil the wheels, so to speak.

Are you getting Bypass facilities here, Mr. MacPhail?
No, we've never had a bypass at Tighnabruaich. Mind you when the bin lorry & the mobile shop meet in the High Street on a Tuesday, there a real hold-up and we could dae wi' one.

What about controlled drugs, then. Are they safe?
Aye. No even the Polis would find'em! They're behind a panel in Sunny Jim's cabin, wi' his stash of wakky bakky & his *Hustlers*.

Who are the Patients you get here, Captain?
One was a Russian seaman off a factory ship Said he had a chill in the Urals, so we kent it was a willie problem. He'd had a funny crusty spot since his shore leave in Hamburg. Then we had that lone Dutch yachtsman wi' his haemorrhoids - he was so grateful that he thanked us worldwide on Sky TV for services rendered and I'd only given him a *loan* of that rubber band!

But most patients come from round here. You know that Wild Man from Dundee who was down here for an assessment. Well, he got in quite a lather asking about "Local Anaesthesia" and we told him *all* the patients were local. He cried "Regional?" and I said they all come from Argyll, mainly on Brewster's bus over Rest & be Thankful. Then he got riled & said something about "Round the Back?" and I told him about Maisie behind the Village Hall being quite accommodating. He didn't seem a bit interested in her and just threw up his hands in exasperation!

We sometimes get a bit of Trauma. We had that rammy at the shinty when Willie Ross got caught in the goolies by a cammock and had to have one oot - we put a pickled onion in its place and he could never pass a cheese roll without a big smile lighting up his face. His Mum then belted that big brute frae Oban on the head and we had to fly him out to Glasgow on the helicopter. I didn't like that big staring ee' he had on one side. The Kyles Games is another busy time for knocks, wi' heavy events like the sheaf & the caber - we get a lot of real big tossers down for that.

What do you give the patients post-operatively?
We gie them a glass of MacPhail's Talisker & a plate of stovies - we've never had ony complaints. In fact we had Lorenzo Amoruso down here in June for an Arthroscopy and the big man was singing like Pavarotti for hours afterwards.

(phone rings) *Para Handy answers it, listens & nods deferentially*
Yes. Yes. Really? That's grand. Thank you, sir. All the best to the family too! Yes, I'll be watching on Xmas Day. Cheerio for now!

That's the Royals on the phone - no Prof., not the Royal College, Buckingham Palace. That was Prince Philip phoning about the scallops we sent down last week when Mary our postmistress got her MBE. What a gentleman he is too, Greek Navy he was. He used to pop ashore for a dram & a blether when Britannia tied up to allow the Queen a chance to get jumpers from the Woollen Mill. The Duke always thinks our seafood far superior to Fortnum & Mason's, though in truth we supply them too.

Who else has been here doing Assessments then, Captain?
The first year it was Leo Strunin and Peter Wallace. We didn't know how these things went, so we were a bit wary of them. Then we found that Leo bred whippets, so Sunny Jim took him off on his Suzuki to the dogs at Dunoon. Leo had great time - had a pie & Bovril, a bit of a change from the oysters & Chablis he had at the Royal Hotel. And then Jim's uncle's dog came in at 50-1 in the long race - the Dunoon bookies didn't know his wife was on dialysis & he'd given her EPO to the dog for a month. It won by 20 lengths, like a blooming rocket. Jim took Leo to the Legion on the way home & they got back here at half past three.

Peter Wallace was a fine figure of a man - I think his Grandad ran a famous pie shop up in Dundee, so that explains it. He also said his great ancestor fought a battle up near Stirling and was disappointed Mel Gibson was chosen to play him in the movie. Myself I thoucht Mel Smith would have been more true to life. Anyway we took him to the pub and let him network with all the grateful locals we'd primed to be there. But he fell asleep back on the boat and had this nightmare - kept crying out in his sleep, time & time again: "Oh no, no, not the Association!" It was obviously some funny business that he'd got involved in, which we really didn't want to get mixed up with. No thanks.

Last year's assessor was that Professor Hutton frae somewhere smoky down South - I never understood a word he was saying, and I got the notion he didn't find me too clear either. However I was pleased when he complimented me about my bookkeeping - said I was a right old count.

Other anaesthetists & surgeons came down here in the beginning?
Oh yes, before Dougie, MacPhail & I were trained, this was a very popular spot for locums. We gave them lots of work, but then they could have a bit of holiday too, on the bleeper.

I remember that farmer anaesthetist from Aberdeen, Greg Imray. He came here for the golf and we knew he was enjoying it - we could hear him from down here in the village, cursing his luck.

Then there was that Professor Spence from Glasgow, or was it Edinburgh? (I was never too sure, but I'm sure *he* knew where he came from) When we saw him at first we thought he was a Senior Civil Servant, because he told us he was down to decide on some honours list. He told me that it was only for Doctors, so I put in a word for old Dr. Hugh in the village for his service to distilleries, but sadly he never got a gong.

Prof. Cuschieri came down from Dundee to do keyhole surgery. Now I've looked in a few keyholes in my time, but I still couldn't help him. He certainly knew his own stuff but he couldn't make head or tail of the local lingo. He took out Dougie's wife's gall bladder, when all she wanted was to be sterilised. Still she's never enjoyed her food more in her life, and she does look better now that she's no that awful yellow colour. Mind you they then had another twa bairns until Dougie got plastered one night and she got Sunny Jim to do a vasectomy wi' his rope knife. Alfred came down with that young anaesthetist from Dundee Neil MacSomebody - a bearded Rob Roy loon - who wanted me to join the Scottish Society and told me about their Meetings. He said I could be on the Council as Rep. for the Kyles of Bute

Dr. Watson, from Edinburgh, another bright young lad - I asked him if kent Sherlock Holmes. Then there was that Ian Johnston from Inverness - he'd been in a few pubs in his time and just loved MacPhail's whisky. That big chap Wagih from Lochaber - what a great man with a camera - snapping away everywhere. We had an embarrassing moment when Sunny Jim asked if he had any "interesting pictures" & got a wee bit excited. I don't think Jimmy knew the Five Sisters of Kintail was just a range of hills up the road. He thoucht it was going to be a great pin-up.

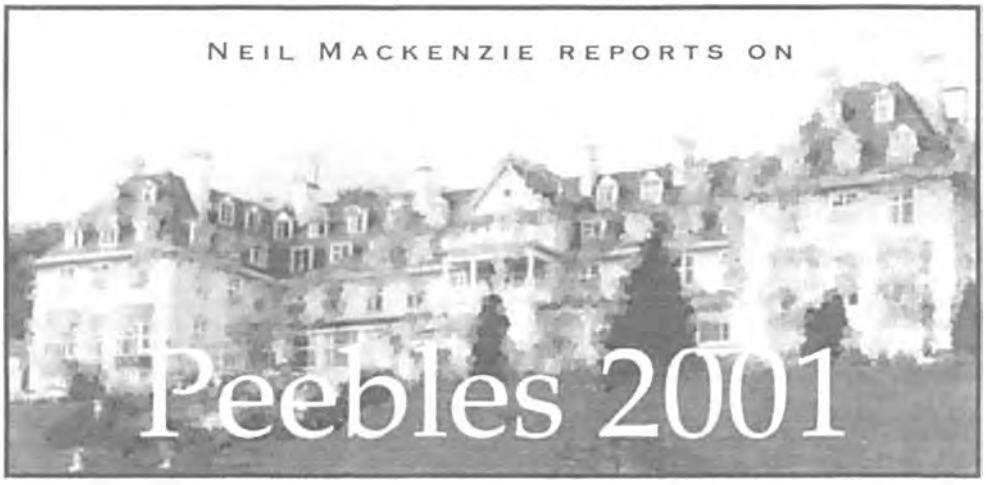
What new developments have you started this year?
We're starting to do pre-assessment - but you've to get them done early in the morning while they're probably still sober. They all tend to lie about the drink too - but hell, who cares? As long *we're* sober on the day, that's all that matters. Heavens, it's hard enough getting baith Dougie *and* MacPhail right at the same time, without worrying about the patients!

And we've started using old fishing net as the mesh for hernias. They think a wee coating of seaweed helps wi' infection control. In a funny way we've gone full circle, as we now use old piles & varicose veins to bait the creels. - never fail to fill the pot.

Another popular thing has been our nurse-led impotence clinic. Nae Viagra here, mind you. Our Shona just dances & shows a wee video. She won the Highland Scottische at the Mod when she was 14, then went over to work at the Crazy Horse in Paris, so she kens how to get a big response. She even does aversion classes wi' a sheepskin rug for a' the local shepherds.

But we're aye looking for holiday relief. You could do your Pain Clinic, Ian; and you, Stuart, could plant some of your sea-pods. And now we've all this publicity in the Scottish Society Journal, lots of folk will want to come here. You've no great governance concerns, have you? Another dram o' the Talisker, lads?

NEIL MACKENZIE REPORTS ON



Peebles 2001

Members and guests enjoyed the traditional Spring weekend retreat to the Borders. The revamped programme and reduced prices seemed to have had the desired effect on attendance, with a twenty per cent increase on last year and noticeably more young faces in evidence.

Friday afternoon's golf competition was fiercely contested in fine weather, with David Steel finally triumphing. Unfortunately the ravages of foot & mouth disease spoiled things somewhat for the fishermen and Donald Miller spent a solitary afternoon at Portmore with nothing to show for his efforts.

The beefed-up scientific programme meant an early start to Saturday's proceedings to the chagrin of some Society stalwarts. Ian Power, recently returned to Edinburgh from Sydney, set the tone with a superb keynote address on "Pain medicine - the future?" in which he drew on his Australian experiences. It was a welcome return for Ian to Peebles, where he had come second in the trainees' prize back in 1989. He then helped judge this year's competition, where we heard six high quality presentations of varying type & format. After much deliberation, the first prize was awarded to Lesley Strachan from Aberdeen, with Jonathan Whiteside and Karen Grimsehl from Dundee coming joint second.

Douglas Arthur admirably chaired the shortened AGM. Political discussion was noticeably absent as compared to previous years and it may well be that the Open Meeting of the newly established AAGBI Scottish Standing Committee will provide the appropriate opportunity for this in the future.

After lunch, the newly-installed President, Farquhar Hamilton, gave a typically well researched, prepared & delivered Presidential Address. He discussed the important role that drugs have played in his professional career from early days as a student helping his father as a pharmacist in Fraserburgh, through clinical research & applications to his anaesthetic & intensive care practice.

The afternoon was rounded off by a bravura performance from Walter Nimmo, Chief Executive of Inveresk Pharmaceutical Research, and also a previous trainee prize winner of the Society in 1974. He drew on aspects of music, literature & art to put across his message on the importance of drug development to mankind.

A full accompanying guests' programme ran throughout the day, including a popular cookery demonstration, archery competition and children's activities. As always, the meeting culminated with the Annual Dinner & Ceilidh where members, guests & colleagues from the Trade ate, drank & danced well into the night.

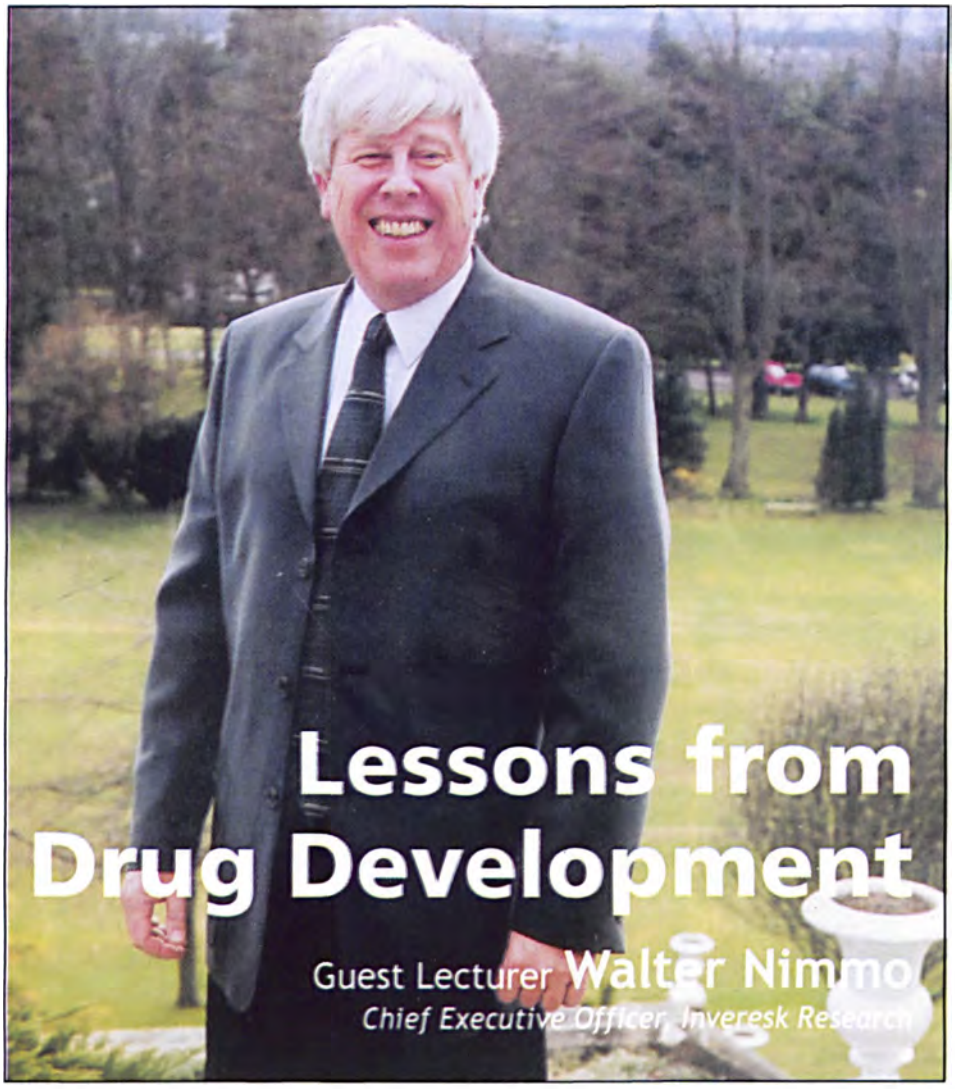
Members departed in various stages of recovery over the course of Sunday morning. There was uniform approval for the changed format (apart from Saturday's buffet lunch!) The keynote speaker & trainee presentation slots were particularly highlighted and the Trade representatives were pleased with the changes.

Council agreed to maintain the same format and hope that Peebles will be even better in 2002 with the return of some of the old guard, plus even more young consultants & trainees who realise what they missed this time round.

DOUGLAS ARTHUR OPENS THE TRADE EXHIBITION • CHEF DEMONSTRATES FOR THE SPOUSES
BOUNCY CASTLES & FACE PAINTS FOR THE KIDS • THE PRESIDENT THANKS GUEST LECTURER WALTER NIMMO
FIONA'S CHARGE HAS A POST-LUNCH SNOOZE • STEADY EDDIE TAMES A TIGER • OUR HOTSHOT ARCHERS TAKE A BREAK


Hello down there - it's time for bed!


Hello down there - it's time for bed!



I was delighted to receive the invitation to give this lecture to the Scottish Society of Anaesthetists. The last occasion on which I spoke at this meeting was in 1974, which in many ways had similarities to 2001. A nervous Prime Minister was preparing to go early to the polls; there had been a threat of a fuel crisis and a restless population was worried about was in the Middle East & recession. There were some differences - including the fact that television stopped at 10.30pm in 1974. However in the 27 years since 1974 there have been many advances in drug therapy and all of these have been fuelled by drug discovery followed by drug development. In this talk I would like to concentrate on drug development and identify what lessons may be learned by reviewing its history.

Robert Burns was arguably the world's greatest songwriter. He wrote approximately 400 songs which have been published and this compares with 190 written by John Lennon & Paul McCartney of the Beatles. For the last 11 years of his life, Burns wrote, collected & modified songs almost exclusively. Almost all of his poetry had been written by the time he was 25 years old. In 1786, when Burns was 27, he took ill with a febrile illness which was almost certainly acute rheumatic fever.

Although there had been some reference by Pitcairn and by Jenner to an association between acute rheumatism and heart disease, the syndrome had not yet been described. Also this was decades before the discovery of the stethoscope and almost a century before the use of the clinical thermometer. A few years later Burns had a tooth abscess and developed subacute bacterial endocarditis. It was this disease which hastened his death in 1796, the same year in which Jenner used the cowpox as a vaccination. Thus Burns died because of a streptococcal sore throat.

Wolfgang Amadeus Mozart lived at almost the same time as Robert Burns. Mozart was probably the greatest musician the world has ever known. He wrote his first concerto at the age of four and many great works as a child & young adult. This was just as well because he also died in his 30's. Mozart had erythema nodosum at the age of six and recurrent sore throats & tonsillitis all his life. He survived typhoid, smallpox & hepatitis A but eventually died of subacute bacterial endocarditis. Thus Mozart, like Burns, died because of streptococcal infection. You will remember that the streptococcus is always sensitive to penicillin.

Some 80 to 90 years after the death of Burns & Mozart, Alexander Fleming was born in Ayrshire. At the age of 14, he left for London and was a medical graduate of St Mary's. He became an FRCS but never actually operated, because he had an interest in bacteria. He worked for Sir Almroth Wright in St. Mary's in which was essentially a private clinical research establishment. During World War I, he travelled with Wright to Boulogne and there he published several papers about the dangers of using antiseptic in soldiers' wounds. The antiseptics did more damage to the white cells which were killing bacteria than they did to the bacteria themselves. This generated a demand for more powerful antiseptics rather than following the observations of Paul Ehrlich, who by this time had used a dye derivative to treat syphilis – the so-called "magic bullet".

In 1918, World War I came to an end. It was established that 8 million men & women had died during the 4 years of stalemate that was World War I. Many more were lost & wounded. However, by the end of 1918, 20 million people had died following influenza in Europe. The influenza had been rather mild, but had pre-disposed the patients to super-infection with pyogenic bacteria. The patients then died of pneumonia and literally drowned. These pyogenic bacteria would have been sensitive to penicillin.

In 1928, Alexander Fleming discovered penicillin, which killed streptococci & pyogenic bacteria. His work was published in 1929 and, in this work, Fleming himself had injected penicillin into rodents for elementary toxicology studies. The world was desperately in need of the drug penicillin but no development took place until the work of Florey & Chain at Oxford and the intervention of the drug industry during World War II to produce penicillin in bulk. Thus there was a visible gap between drug discovery & drug availability following its development.

The story of anaesthesia is similar. The anaesthetic properties of nitrous oxide & ether were identified 40 - 50 years before they were used for surgical anaesthesia. During this 40 - 50 years patients were exposed to the most exquisite agony & risk during surgery done without anaesthesia. Sir James Young Simpson was one of the great anaesthetic pioneers and also one of the world's great drug developers. Following the discovery of the anaesthetic properties of chloroform, he had used it extensively within a few weeks under careful supervision. Thus we recognise the great importance of skilled & appropriate drug development following discovery.

Nowadays there is a great incentive to develop discovered drugs quickly. One striking example is the treatment of peptic ulcer. In 1949 the treatment of choice for peptic ulcer was partial gastrectomy and the mortality from the therapy was 10%. Fifty years later, following the discovery & development of acid inhibition & triple therapy, there is virtually no mortality from peptic ulcer. Similarly great strides have been made in the treatment of hypertension, malignant disease & infection. The price of this has consistently been less than 12% of the total healthcare spend in all civilised countries and in the United Kingdom in the years 2000-2001, the price of prescribed medicines was equivalent to 28p per person per day. This is less than half the expenditure on alcohol each day and less than 10% of the expenditure on food each day per person.

Drug development incorporates preclinical studies such as acute or chronic toxicology, safety pharmacology, reproductive toxicology & metabolism before proceeding to Phase I studies or first administration to man, Phase II dose finding studies in patients and eventually Phase III comparative clinical trials for application for product licence. At any one time there may be 6,000 drugs being studied preclinically, and several hundred undergoing clinical trials. Approximately 30-40 new chemicals are licensed for use each year in each civilised country. Thus there is considerable wastage between preclinical development and drug licensing.

In this essay I would like to talk about three aspects of drug development of contemporary concern.

1. Preclinical Toxicology

It is generally accepted that animal studies are essential before potential new pharmaceuticals can be given to man. In the United Kingdom in the year 2000 there were 3 million animal studies and 90% of these were rodents. This compares with 650 million creatures killed for food and 4 million cattle killed in 2001 because of potential foot & mouth disease. In the United Kingdom, 3000 dogs were studied, this compares with 100,000 unwanted dog pets destroyed in the year 2000. The number of animals used in pharmaceutical and preclinical studies is decreasing each year. Animal studies are in general predictive of human toxicology and predictability is improving. In 2000 it was identified that toxicology studies properly conducted in two species (one of them non-rodent) were over 70% predictive of human toxicity.

2. Healthy Volunteer Studies

Usually drugs are given to healthy volunteers for the first administration in an attempt to identify tolerability and pharmacokinetics. It is important that the maximum tolerated dose is identified before any observations of efficacy or the clinical pharmacology are made. Obviously safety of the volunteers themselves is of paramount importance. This safety is assured by screening of the volunteers to ensure that they are healthy and are not taking any other medicines. This screening should include contact with the volunteer's own general practitioner to ensure that he does not object to his patient participating. Typically these screening procedures will result in 40% of potential volunteers being considered unsuitable for the volunteer studies.

In a review of 23 studies conducted in our clinic at Inveresk Research, we identified that almost 90% of volunteers report an adverse event at some time during the study. However percentages were identical in placebo and active groups and the symptoms are non-specific. When adverse events are allocated to be related to the drug as judged by the known pharmacology of the drug in animals and the timing of the adverse reaction, only 21 adverse drug reactions were identified in all 23 studies which contained 4000 drug exposures. All 21 adverse reactions were in the active group and there were no serious adverse drug reactions. Thus when conducted properly healthy volunteer studies are safe and can identify maximum tolerated dose of a new chemical entity.

3. Quality of Clinical Trials

Because of monitoring and quality assurance of pharmaceutical trial data, the quality of trial data is very high. This allows the interpretation and re-interpretation of results should that be indicated. Accuracy and precision of clinical measurement allows fewer patients to be studied, demonstrate the effect in clinical trials and this must be considered ethical and financially advantageous. Monitoring of compliance identifies that 100% compliance is essential for the therapy of HIV and if compliance falls to less than 70%, one might expect more than 90% failure of viral killing. This has important messages for all of us. Thus monitoring of compliance and adherence is essential in clinical trials. This lesson may be extended to healthcare delivery in the treatment of hypertension and the use of statins. There are clear data to suggest that after a 6 month period adherence with these medications is only 50%.

In conclusion, the lessons to be learned from drug development are as follows:

New drugs are efficacious, safe and cheap. Drugs make healthcare accessible – there is no waiting list to receive a drug and monitoring of compliance is necessary; lessons learned from the drug development process could improve healthcare delivery.

trainees' prize

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CHRONIC PAIN FOLLOWING STERNOTOMY IN THE GRAMPIAN REGION

Lesley Strachan *SpR Aberdeen Royal*

Chronic pain after surgery has only recently been recognised as a significant problem. Recent studies in our region reported that up to 30% of patients have chronic pain following mastectomy or inguinal herniorraphy. Other researchers have recognised chronic pain after surgery such as cholecystectomy & thoracotomy, the incidence varying between 10 to 50%.

Macrae & Davies[1] carried out a review of chronic post-surgical pain in 1999. They comment that there were few references to be found in their literature search and most of these studies were "poorly designed, executed, analysed & interpreted". It is unknown why some patients develop chronic pain while others undergoing the same surgery don't. Some suggest preop. pain may play a role in development of postop. pain. Effective treatment of acute pain may also reduce the incidence of chronic pain, the method of analgesia mattering less than the level of analgesia obtained. However, conclusive evidence is lacking. Several studies conclude chronic postsurgical pain is long-lasting or permanent & is difficult to treat. Macrae & Davies suggest the incidence of chronic pain needs to be known in order to adequately consent a patient for surgery as the chronic suffering postop. may be worse than the initial presenting problem.

One reason why chronic postsurgical pain studies have been neglected may be that there is a diverse range of pain syndromes that can occur postoperatively. Patients complain of widely varying symptoms, descriptions of which may lead clinicians to infer a cause. For example, nerve injury may be implied by descriptions such as "burning" "shooting" or "tingling". Sometimes symptoms are vague and the pathophysiology remains obscure. Pain is only one of a range of unpleasant chronic symptoms arising from sensory disturbance that cause long-term discomfort. Phantom sensations, numbness, allodynia & hyperalgesia may also be distressing.

Patients attending cardiothoracic O.P. clinics following coronary artery bypass grafting or cardiac valve replacement have been observed to complain of pain in their sternotomy wounds. No large scale study, to date, has been carried out to estimate the incidence & nature of this pain and the natural history of the pain is unknown. This would be particularly important to consider when designing interventional studies. It was therefore decided that a post-sternotomy pain study would be useful one.

I began the process by carrying out a literature search to confirm this indeed had not been done before and to aid me in designing a postal questionnaire for patients who had undergone surgery involving a sternotomy.

Chronic pain is usually defined as having been present for three or more months. Pain after cardiac surgery may be due to a pre-existing cause such as angina, graft sites or the sternotomy site.

Post-sternotomy pain has been recognised to be directly related to specific underlying pathology such as infection, non-union of the sternum, protruding wire & fracture of the sternum or first rib[2]. Some cases are attributed to anxiety or musculo-skeletal disorders and many have been poorly defined.

Several small studies suggested the sternal wire itself is a cause for chronic pain. One case report suggests nickel sensitivity as a cause[3]. The incidence of nickel hypersensitivity in the general population is 10.5% & five times more common in females than males. The patient concerned in this report had chronic pain unresponsive to NSAIDS, nortriptylline or clonazepam. Her pain was reproduced by pressure over the incision site. She was found to be allergic to nickel and removal of her nickel-containing sternal wires abolished her pain completely.

Another study showed 18 patients with chronic post sternotomy pain[4] to have an exaggerated fibrous tissue reaction to sternal wiring. One or more sensory nerves were trapped in the scar, which was tender to palpation. There was evidence of the iron in the wire having eroded, the theory being that the protective coating of nickel, molybdenum or chromium had been damaged during twisting of the wire at insertion.

The recognition that sternal wires can cause postop. morbidity, led to a comparison with a different technique of sternal closure, namely steel bands[5]. 21 patients had sternal closure with 4-6 steel bands and 27 with standard steel wires. Banded patients complained of less postoperative pain than the other group. Neither group had any problems in the 3-year follow-up period. The need to study larger numbers was commented upon. Just & Schussel in 1997[6] found no difference between the two methods.

In 1989, Defalque & Bromley[7] studied 54 patients with onset of pain 1-4 months after surgery. Some had pain differing from two previously-described post-cardiac surgery pain syndromes, namely brachial plexopathy & post-cardiotomy syndrome, a non-specific pleuropericarditis occurring in up to 30% of patients following surgery[8]. It is probably an autoimmune response, presenting as pleuritic chest pain, fever and signs of pericardial inflammation after the first postoperative week. 34 patients had left sternal border pain with trigger points identifiable as hard nodules due to scar-entrapped neuromas of anterior branches of intercostal nerves. Relief was obtained by injecting bupivacaine.

Retractor type may also play a part in causing chronic pain. Sternal fracture is associated with persisting pain[9] - it was higher (17%) with internal mammary artery revascularisation compared with saphenous vein grafts (4%). Different retractors were used for internal mammary artery harvesting.

Only one study was similar to the one proposed, but only 57 patients were included[10]. Investigators found 15 of these patients had chronic pain, mainly on the left side of the chest. They suggest long-lasting angina may increase sensitivity in certain cells in the posterior horn of the spinal cord so a minor signal from a scar could be intensified to simulate previous angina.

From the literature review, there were several questions I thought important to address, and based the design of the pilot questionnaire accordingly. In particular, I wanted to use validated questions wherever possible and to determine which patients had recurring angina. There was a pre-existing database containing details of the surgery carried out, including which patients had internal mammary grafts. The cardiothoracic surgeons in our region use identical stainless steel wires.

With guidance from a consultant anaesthetist specialising in chronic pain & who had been involved in previous studies of chronic pain following mastectomy & inguinal herniorraphy, I constructed the questionnaire. There were 48 questions in total (used in the previous mastectomy study), detailed as follows:

- **Questions 1 to 13** asked for details of age, sex and how the patient described current physical & mental health using *Short-Form 36* questions
- **Questions 14 to 19** asked questions about the cardiac surgery with details of subsequent complications particularly in relation to sternal wire removal or reinsertion.
- **Questions 20 to 26** attempted to identify whether the patient had angina preoperatively, and how they described it, in the form of questions from the *Rose Angina questionnaire*.
- **Questions 27 to 31** asked about the incidence of post-operative pain, whether it was the same nature as preop. and when it commenced.
- **Questions 32 to 48** asked specifically about chronic pain and exacerbating & relieving factors. It included a diagram of the anterior & posterior chest walls, allowing patients to insert symbols to describe the nature of their pain or other abnormal sensations at specific sites. It also included word groups from the *Megill Pain Questionnaire* in which the patient picks words that best describe their pain, and also a section at the end in which the patient could enter any other information they considered relevant that we may have omitted to mention.

A statistician and members of the public health department gave advice on questionnaire design. Ethics committee approval was obtained before the pilot questionnaire was distributed.

A database listing all patients from April 1996 to June 1999 (1806 total) was sampled by myself & the cardiothoracic surgeon by taking the first patient operated on each month. A random sampling method was not used as the purpose of the pilot questionnaire was to test the ease by which it could be understood & completed rather than for statistical analysis. This list was checked using the hospital Patient Access System to enquire as to whether these patients were still alive.

The timescale of the database is important, because at the start of the study none of the patients had undergone surgery more than four years previously. We know saphenous vein grafts remain patent for 5-10 years, internal mammary grafts for longer & angina symptoms correlate with graft patency. In theory none of our patients should have had recurring angina. However, it is known that only 80% of angina improves with surgery, in 10% it becomes worse, and in 10% there is no change.

A questionnaire was posted to 35 patients with a covering letter.

29 replies were received.
11 patients admitted to having chronic pain.

8 had pain exclusively in the chest region, only one describing the pain identical to that preoperatively.

One patient had reflux and specifically stated that he could not distinguish this pain from other causes of chest pain.

2 patients in this group had had their sternal wires removed (as opposed to one in the non-pain group).

One patient described an area of cold sensation
"as though the blood supply had been taken away after my internal mammary artery was removed"

3 patients complained of chronic leg pain.
Because this was not an area we had thought of when designing the questionnaire, there were not any questions to ascertain whether this was pain due to the vein graft site or due to other common ailments such as arthritis in this elderly population.

One patient complained of chronic left arm pain.

The chest pain varied greatly in description, but words most commonly used to describe it were "tiring, aching, nagging or stabbing" It was mostly central or left-sided. My impression was that patients who had negative descriptions of their health & were limited in activity were more likely to complain of pain.

Generally, the questionnaire appeared to have been well understood by patients. No questions required to be changed, but two more were added. An open-ended request for other comments yielded information regarding patient perceptions of their GP's views on their pain. One patient stated:
"If I were to live life stripped to the waist, I would never feel the pain"

All patients admitting to pain were prepared to be interviewed if necessary & were provided details of a contact phone number.

The pilot questionnaire was modified to include questions on chronic leg pain specifically at the site of saphenous grafting, as this had been present in over 10% of respondents. Details of patient's occupation & home circumstances were requested in order to gain greater understanding of whether chronic pain is a factor that prevented people returning to work or if poor family circumstances with minimal support had any bearing on the incidence of chronic pain.

Based on these results, the British Heart Foundation provided a grant to carry out a large study, undertaken by a full-time MSc student in the Dept. of Public Health. The results of this main study are still being analysed:

Questionnaire returns were high (89%). 73% of patients were male

40.9% of patients had chronic pain: 31% of these had chest pain only, 19% leg pain only and the rest reported both.
Patients reporting pain were more likely to be younger ($p<0.00$) and overweight with a BMI of over 25 ($p=0.04$).

Of the 350 patients reporting chest pain, 27% described the pain as similar to that experienced preoperatively. Further tests were performed to identify those with suspected recurring angina compared to those with post-surgical chronic pain.

A poorly-answered question related to removal or reinsertion of sternal wires. The pilot included "breastbone" to describe the sternum. This was missed out of the main questionnaire accidentally & led to confusion.

This is currently being written up with a view to publication.

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Editor's Summaries of other Papers presented . . .

Jonathan Whiteside, Dundee (Jt. Runner-up)

A comparison of 0.5% Ropivacaine (5% Glucose) with 0.5% Bupivacaine (8% Glucose) for Spinal Anaesthesia

Ropivacaine, an amino-amide local anaesthetic agent similar to bupivacaine in chemical structure, has been little studied for intrathecal use. Early evaluation included studies of glucose-free solutions to allay safety concerns should accidental intrathecal injection occur during epidural block. Sensory block of variable extent & intermediate duration was produced.

Currently, ropivacaine is not licensed for intrathecal use, but clinical studies of plain ropivacaine compared it unfavourably to bupivacaine. However adding glucose to ropivacaine was recently shown to provide reliable spinal anaesthesia of intermediate duration. This study was designed to compare clinical efficacy of a hyperbaric solution of ropivacaine to the commercially available hyperbaric bupivacaine.

Onset with bupivacaine was significantly more rapid to T10 than ropivacaine. Block heights were higher for bupivacaine, but this caused a significant increase in the requirement for ephedrine. Both produced clinically relevant sensory blocks.

Differences seen in the degree & duration of motor block with ropivacaine could be predicted by virtue of its lower lipid solubility - there is a greater degree of sensory-motor separation when using ropivacaine. Motor block with ropivacaine was less intense & of shorter duration than seen with bupivacaine. Ropivacaine's recovery profile was favourable with more rapid regression of sensory & motor block, earlier mobilisation and shorter time to first micturition. With greater emphasis on ambulatory surgery, such a recovery may be of benefit.

In conclusion, ropivacaine that is hyperbaric relative to CSF can be used to provide reliable spinal anaesthesia clinically comparable to hyperbaric bupivacaine, but of shorter duration. Further work will evaluate its role for surgical procedures of short to intermediate duration in the ambulatory setting.

Stephen Noble

The Urea Reduction Ratio as a means of quantifying Intermittent Haemodialysis in Acute Renal Failure

Intermittent haemodialysis (IHD) is commonly employed in ICU. Renal replacement therapy has a direct influence on survival from critical illness but there are no accepted standards for the *amount* of IHD necessary to achieve the best patient outcome. An acceptable means of quantifying therapy must be established.

The urea reduction ratio (URR) offers some potential in this area. It is well established in the treatment of end-stage renal failure where there is a poorer outcome in patients who regularly achieve a URR of less than 60%.

ICU patients with ARF were audited to quantify the dialysis administered and to define a regression equation that would predict the hours of dialysis required to achieve a particular reduction in plasma urea in a patient of a known weight.

The URR is the relative reduction in plasma urea expressed as a percentage. **100*(1-urea post dialysis/urea predialysis)%**

Baseline URR values permit assessment of future changes in haemodialysis prescriptions. Unfortunately, confidence intervals on our regression equation were too large to allow us to employ it in clinical practice. Difficulties include estimation & fluctuation of body weight & wide variations in post-dialysis sample times.

Changes are required in the way dialysis is delivered on the ICU. The URR is a tool that might allow us to assess the effect of renal therapies. We measure blood gases on ventilated patients - we should also be assessing the effects of dialysis prescriptions.

Stephen Cole, Dundee

Treatment of post-traumatic brain injury: clinical & practical considerations of the Lund Concept

Patients admitted to intensive care with a traumatic brain injury are at risk from further damage due to secondary insults caused in part by inflammation & oedema around the injured area. One model of treatment to minimise this has been developed at the University Hospital of Lund, in Sweden.

In the normal brain, volume regulation is dependent on an intact the blood brain barrier, permeable to water but not to solutes. Crystalloid osmotic pressure differences are major forces driving fluids across the capillary membrane. Following brain injury & disruption of this barrier, fluid transfer is dependent primarily on the capillary hydrostatic pressure. When associated with impaired autoregulation of cerebral blood flow, this capillary hydrostatic pressure simply follows changes in arterial blood pressure. It is not possible at the present time to restore the disrupted blood brain barrier either surgically or with drugs. In Lund specific interventions have been developed to reduce capillary hydrostatic pressure in patients with brain injury.

- Colloid osmotic pressure is maintained by albumin infusions to keep an albumin of ~40g/l. Haemoglobin is actively kept at ~120g/l. Normovolaemia is maintained.
- Intracranial pressure is invasively monitored in all patients and increases in ICP are aggressively treated first medically but then surgically if indicated following CT scan.
- Hypotensive therapy with metoprolol & clonidine has been shown to reduce extracellular cerebral oedema.
- Dihydroergotamine - used to decrease cerebral blood volume by acting as a precapillary vasoconstrictor and by reducing venous capacitance.
- Low dose prostacyclin has been suggested to have the vasodilatory and antiaggregatory effects to improve the microcirculation and oxygenation around an area affected by traumatic brain oedema

Jonathan Edgar

Education in Anaesthesia: an Update

Education in anaesthesia is an interesting and expanding field which is assuming an ever increasing priority for policy makers at government, College and local level. Why is this the case? Within the last decade, there has been a realisation that the way doctors are trained may be less than optimal.

Recent developments & the significance of these changes are outlined as they apply to education & training in anaesthesia.

Topics discussed included Quality Assurance, Societies & Courses, Simulators, Research & I.T. Developments in Anaesthesia Education.

Our speciality has an excellent reputation in this area and is well placed to take advantage of these changes.

Karen Grimsehl, Dundee (Jt. Runner-up)

Comparison of Cyclizine and Ondansetron for the Prevention of P.O.N.V. (in Laparoscopic Gynae Day Case surgery)

Postoperative nausea & vomiting (PONV) is a common problem (40-77%) after gynaecological laparoscopy. It prolongs hospital stay & significantly delays discharge. Management is difficult due to the multifactorial aetiology, but intraoperative antiemetic medication (particularly in combination) will reduce the incidence.

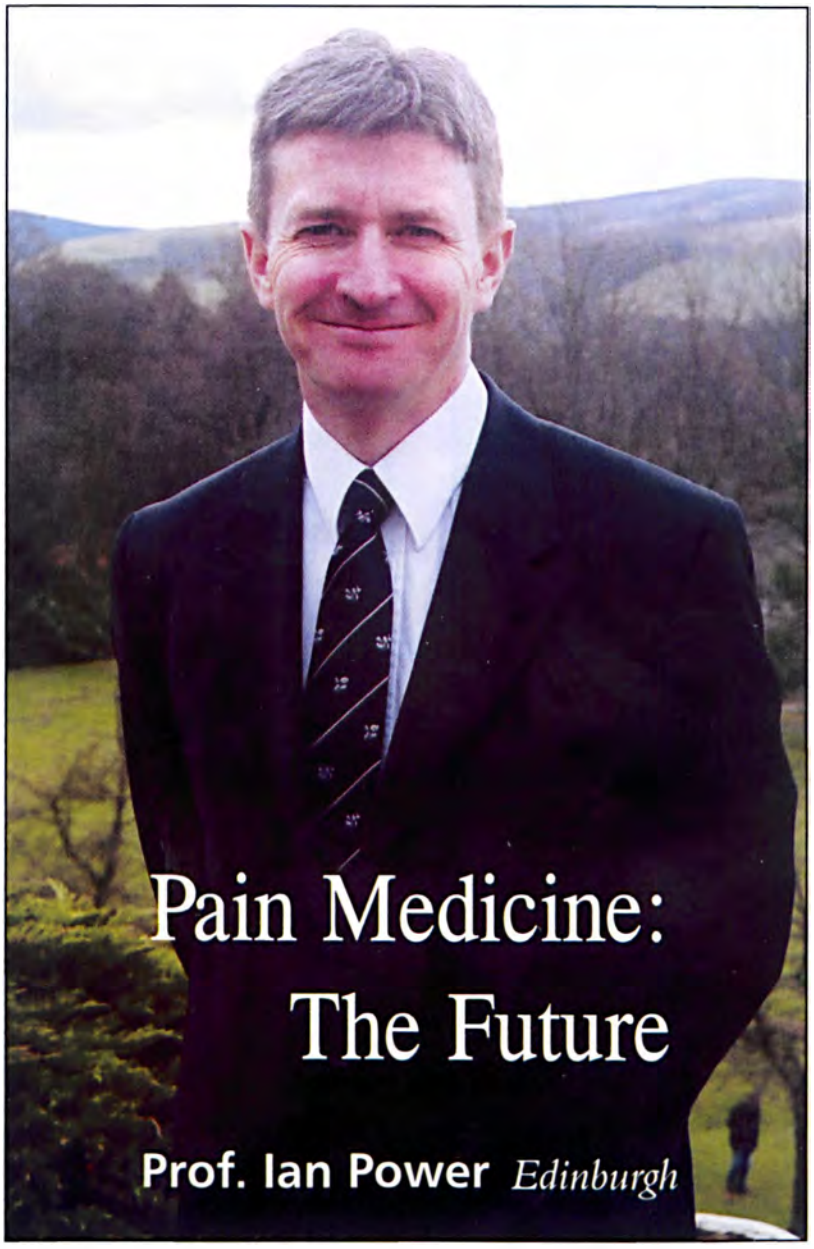
We compared cyclizine & ondansetron for PONV prophylaxis in day-case gynae. laparoscopy & found them equally effective, though PONV remained high (54-56%) even with prophylaxis. While cyclizine prolongs time-to-eye-opening, time-to-discharge is unaltered.

Cyclizine should be the first choice anti-emetic, because of the cost differential. (1/10th the cost of ondansetron)

Further study is required into combination anti-emetic therapy, as PONV remains disappointingly high in this group.

TRAINEES' PRIZE 2001

LESLEY STRACHAN RECEIVES HER WINNER'S CHEQUE
FROM LES SMITH, U.K. MANAGING DIRECTOR OF DATEX-OHMEDA



In the 19th. century James Young Simpson described pain as "morally and physically a mighty and unqualified evil". After all the advances we have seen recently in the relief of pain, it might be expected that this "evil" should no longer be with us. However, pain is still a major health problem.

In his Dean's letter to the Faculty of Pain Medicine of the Australian & New Zealand College of Anaesthetists in March 2001, Michael Cousins noted that a conservative estimate is that one in five of the population suffer chronic pain, chronic pain is common after surgery or trauma, and that there is still a remaining high incidence of ongoing unrelieved cancer pain.

Moreover, Professor Cousins indicated in an article to the Medical Journal of Australia in 2000 that "There is a need for more focus on acute pain, changes in attitude and practices, and adoption of a general view that relief of acute, severe pain is a basic human right, limited only by our ability to provide it safely in the circumstances of individual patients." It is evident that the "mighty and unqualified evil" of pain described by James Young Simpson is still with us.

Much of my own impression about the future of pain medicine stems from my experience in Australia, and centres around three separate projects.

The first was the publication of the document *"Acute pain management: scientific evidence"* by the National Health & Medical Research Council of Australia in 1999. The second was my involvement in the Graduate Diploma/Masters in Pain Medicine of the University of Sydney, a distance learning course (now available on the Internet), focusing on education in pain management. The third project was the creation of the Faculty of Pain Medicine of the Australian & New Zealand College of Anaesthetists, of which I am a Fellow. Although Australia is often thought to be favoured for public health services, with respect to pain it is worth remembering that a 1999 survey of Australian hospitals with more than 100 beds indicated that less than 50% of those hospitals had a formal Acute Pain Service, such services were more common in public hospitals & in large cities, and that 98% of the service used epidural analgesia (84% on general wards). A comment made by the authors of that 1999 survey was that "Many hospitals used advanced analgesic techniques without a formal Acute Pain Service or audit of their practice."

In 1996 the National Health and Medical Research Council commissioned a group of individuals, including myself, to consider the evidence for the various treatments of acute pain. The Working Party included clinicians from anaesthesia/pain management, physicians, surgeons, nurses, psychologists, pharmacists, educationalists & a patient/consumer. This was therefore a very multidisciplinary approach to acute pain. The terms of reference were to identify the scope of the problem, assess existing evidence & guidelines, and write "evidence-based documents" for health care practitioners engaged in the care of patients experiencing acute pain & also for consumers.

The National Health & Medical Research Council (NHMRC) levels of evidence were adopted which range from Level 1 (the best) – systematic reviews of randomised control trials (with meta-analysis where possible) to Level 4 (expert opinions). In 1999 a document *"Acute pain management: scientific evidence"* was published & distributed widely within Australia. The contents pages indicate that Acute Pain was no longer viewed by this group simply as post-surgical or post-trauma pain. For example, the chapters range from "The clinical picture" to "Principles of assessment & management" to chapters on "Acute postoperative pain management in adults" and "Obstetric analgesia", and extend consideration of acute pain to include "Acute pain associated with medical conditions" and "Adjuvant agents in the treatment of acute neuropathic pain". In the whole document it was possible for the group to make 34 "statements of evidence" (where Level 1, 2 or 3 evidence existed). Such statements of evidence range from Level 1 evidence that postoperative epidural analgesia can reduce the incidence of pulmonary morbidity, to again Level 1 evidence supporting the efficacy of paracetamol as a postoperative analgesic. Specific chapters worth consideration include the chapter on "Neuropathic pain" where the features of neuropathic pain were listed to aid diagnosis, and the evidence on the safety & efficacy of anticonvulsants & antidepressants as treatments is presented. The wide-ranging nature of acute pain is also demonstrated by Ch. 8 "Acute pain associated with medical conditions", where conditions such as cardiac pain, herpes zoster infections, headache, muscular skeletal pain & sporting injuries are considered. It is evident from this project *"Acute pain: scientific evidence"* that the nature of acute pain management is very wide indeed, and may extend beyond traditional anaesthetic practice.

Whilst in Sydney I was fortunate to be involved in setting up a new "Graduate Diploma in Pain Medicine" of the University of Sydney. This sought to teach "clinically relevant education in the sciences, concepts, approaches and procedures for pain management in the context of the multidisciplinary team." Again, the multidisciplinary approach to Pain was evident.

An understanding of the basic pathophysiology of pain is provided by this Diploma, together with education on the various pharmacological, physical, & psychological treatments available. It is important to note that this Diploma provides education for practitioners in acute, chronic & cancer pain. My work in this Diploma led me to conclude that sometimes the divisions between acute, chronic & cancer pain were artificial & unhelpful when designing such an educational endeavour. In 1998 the Australian & N.Z. College of Anaesthetists formed the Faculty of Pain Medicine, and in 1999 the first examination was held in Sydney for the FFPMANZCA. The aims of this Faculty are to promote approved training & provide examinations in Pain Medicine, to encourage a multidisciplinary approach to acute, chronic & cancer pain, and to facilitate the integration of pain services. The aims of the Faculty can be viewed on their website **www.fpm.anzca.edu.au/** On the website, the creation of the Faculty is seen as an "Important & innovate advance in dealing with the management of acute, chronic non-malignant & cancer pain which collectively remain one of society"s major problems".

Irrespective of the differences between Scotland and Australia & New Zealand, and of the approaches we might want to take to pain services, there can be no doubt that acute, chronic & cancer pain are serious problems in this country too. Training for the FFPMANZCA comprises two years – one year during training for the Fellowship in Anaesthesia (or equivalent subjects such as Medicine or Surgery) and a second year in an *approved* multidisciplinary Pain Centre dealing with acute, chronic & cancer pain.

Such Pain Centres must provide the trainee with a minimum of 200 new patients per year who have acute perioperative or trauma related pain, a minimum of 300 new patients per year suffering chronic non-cancer pain or cancer pain, and a minimum of 5 out-patient medical specialist sessions a week. These requirements were really designed for very large metropolitan cities such as Sydney, Melbourne, Adelaide, Brisbane and Perth. More rural areas would not be able to provide such a large number of new patients a year.

It is worth reflecting upon this matter when considering training for Pain Medicine in Scotland. Certainly the aims of the new Faculty for their Fellows are high as they are expected to have "A wide knowledge of the clinical, biopsychosocial and humanitarian perspectives of all aspects of pain".

As we know, there has been encouraging activity within our own College of Anaesthetists for development in strategies for training in Pain Management. Dr. Douglas Justins commented upon this in an Editorial in the European Academy of Anaesthesia Newsletter in 2001. We should look upon these developments as a real opportunity to improve training in Pain Medicine in this country.

From my own experience with the three projects I have discussed, I believe that there is enormous potential for us to make a difference to the relief of acute, chronic & cancer pain in Scotland.

I believe that we should establish an evidence-base approach to the relief of pain in this country, develop educational opportunities for clinicians interested in Pain Medicine, and support our College in developing training programmes for specialists in this area. By these means, we can continue to conquer the "mighty and unqualified evil" of pain.

The A to Z of SCOTTISH 'ANAESTHESIA'

With regard to subtle national differences, should there be a dedicated Scots guide?

A is for Anaesthesia, keeps patients asleep, but alive,
B is for Barr's Irn Bru - the ultimate revive.

C is for Claret, a premier grand cru-er?
D is for Drambuie, Prince Charlie's liqueur.

E is for 80/-, eight pints and your maimed
F is for Freddyphudpucker, does all that it's claimed?

G is for the Glens - och, it doesn't matter which
H is for Hair of the Dog - you're "dug out of the ditch".

I is for the Islay malts' peaty aroma
J is for a Jeraboam from Valvona & Crona

K is for Kaliber, for the driver in a hurry
L is for Lager, taken best with a curry

M is for Macallan, a superior dram
N is for (an Edinburgh) "No Thanks" to standing your hand.

O is for Glenm-Orangie, please say it correct!
P is for Propofol, the Milky Way Sekt.

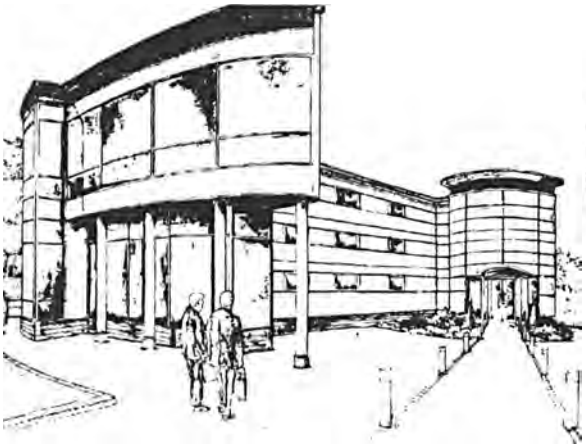
Q is for Quantro, (Ach, I never could spell)
R is for ten Rum'n'Cokes, she's nae offy well.

S is for Speyside, where great whisky is distilled
T is for Tennents, countless pint tumblers filled.

U is for "Unable to Serve you, Sir" - which is greeted with curses
V is for Vodka Ice, a social lubricant for nurses?

W is for White wine - chardonnay, sauvignon or chablis
X is for XXXX - strewth! - it makes Aussies babbly.

Y is for Y-not!, if you're offering to buy,
Z is for a zizzzzzzzzz (too many I've tried!)



Scientific Meeting

BLCC, Halbeath, Dunfermline

Callan Wilson, on behalf of the host Kirkcaldy Department, welcomed a much larger-than-anticipated gathering of members.

Jenny Meek introduced her orthopaedic colleague with whom she shared many interesting conversations across the blood-brain barrier - "only some about medicine".

Ivan Brenkel, a SIGN-guideliner on *Thrombosis Prophylaxis in Orthopaedic Surgery*, felt he had found himself in a surgeon's dream - surrounded by anaesthetists!

He regarded prophylaxis as about balancing risks, in which the physician's & surgeon's views differed: where you aimed for efficacy of protection with acceptable bleeding.

Ivan reviewed local & systemic risk factors (including fairly common thrombophyllias like Factor V Leiden deficiency) & treatments (pentasaccharides, direct thrombin inhibitors).

He questioned whether prophylaxis prevents or just delays P.Es; or even necessary at all, when today's mortality is 0.12-0.38%, much reduced from the 2% of the Charnley era. He suggested the optimal "compromise" (mindful of our concerns of spinal haematoma & his of bleeding) as a half-dose of LMWH 6 hours post-op; Ivan further advocated extending therapy for 6 weeks with effective oral agents, superceding aspirin.

Lastly, he urged us all to get on the Scottish Register, to increase the validity of figures & thus direct future management practice.

Judith Steel MBE told us all about her *"Sugar Babies"* in the management before, during & after diabetic pregnancies, which are fraught with difficulty & increased risk to mother & child.

She outlined the incidence (disasters 6-17%) and the pathogenesis of medical problems - early abrupt maternal hypoglycaemia and later foetal hyperglycaemia being her chief concerns.

Increased & multiple malformations highlighted the need for diabetic control to start early, even pre-pregnancy in adolescent counselling clinics. Judith recalled a proud girl shouting out in *Sainsbury's* "I'm pregnant, Dr. Steel. Got the test done today!"

Her first aim is to reduce concealed pregnancy & defaulting; then to provide dietary advice & HbA1 monitoring to achieve control. She outlined the use of *Glucowatches* and the role of family observers using emergency glucagon in patients prone to hypos.

Big fat babies or low-growth ones with RDS (deficient surfactant) result from hyperglycaemia. Type II diabetics, which have a higher incidence in the Asian community may require insulin.

The best management during labour used a sliding-scale insulin regimen to keep glucose at 7mmol/l until delivery, when requirements drop abruptly to zero.

Judith's commitment to these patients is huge. Her "Sugar babies" are clearly a lot of work and undoubtedly extra-special!

Gordon Drummond looked at *The HDU Experience*, likening post-op hypoxaemia to sleep apnoea - with repetitive cycles of obstruction & arousal, abolished by giving oxygen - and queried whether this was at the root of adverse cardiovascular events.

Nasal CPAP had no effects on hypoxaemia or sleep patterns and surprisingly *increased* hypoxic events in awake patients. Gordon discussed the % of phasic contractions from abdominal muscle EMG traces and its relevance to sleep & hypoxaemia.

He then turned to a patient's view of HDU, commonly "Let me get out of here!" Stress markers may show reducing ambient noise & disturbance from recordings promote sleep & recovery. A sleep-lab study of ex-HDU patients showed it is when they return to wards, are off oxygen & return to deep REM sleep, that hypoxaemic/myocardial events are likely to occur. A quiet HDU with good analgesia & discrete monitoring is probably best.

David Watson chaired a pain session with three speakers from the University of Edinburgh Department. (Ian Power remarked on how delighted he was to meet all his colleagues here!)

First **Lesley Colvin** studied *Neuropathic & Phantom Pain*, looking at why pathological pain occurred after surgery, its character, frequency (highest with amputation, but significant in many other areas) and its effective treatment & avoidance.

Lesley reviewed progress in neurophysiology knowledge, from a hard-wired anatomical system to a more dynamic model, highlighting many sites where we could potentially intervene with our increasing array of designer drugs.

She discussed ectopic discharge after nerve damage, interrelation with the immune system, dorsal horn sprouting/connecting (countered by giving NGF to prevent allodynia) and the loss of dynamic neurochemical balance in chronic pain states. Lesley advocated an early, integrated approach to pain management.

John Wilson moved further into the realms of Brain Imaging in discussing *Phantom Pain*. His research integrated MEG, EEG, functional-MRI, PET & SPECT to follow the central location of pain imaging through known neuro-metabolic pathways.

Pain stimulation produces increased blood flow more than the increased oxygen extraction in the specific area of the somatosensory cortex as modelled on "Mr. Penfold". The proximity of lip to upper limb is used in research of phantom pain after UL amputation; cortical remapping mislocation can be seen & used to assess treatment.

Ian Power, in *Managing Acute Pain: Learning from Chronic Pain,* analogised more esoteric aspects of chronic pain as a bell ringing after you'd taken your finger off the button.

Back to basics, Ian discussed pain pathophysiology and its perception centrally. He thought it fortunate that humans have many descending modulatory pathways which can be recruited therapeutically.

Ian reckoned acute pain teams had improved the early management of pain but "analgesic gaps" still needed bridging in later hospital stay and on returning home. We should use long-acting opioids, taking care of empty-stomach dumping causing respiratory depression.

He outlined how he considered the Number-Needed-to-Treat (NNT) analogous to MAC in assessing analgesic effectiveness, either when used singly or in combination therapy.

Ian advocated early diagnosis & treatment of neurogenic pain, as chronic pain is so difficult to treat. He felt that pain in an area of sensory loss or an inability to relieve it (sometimes with *more* pain on using opioids) should alert us to treat with anticonvulsants, antidepressants or NMDA antagonists. An infusion of lignocaine (1mg/kg/hr s/c) or ketamine (5mg/hr iv) would be followed by oral tricyclics or anticonvulsants. We were all also encouraged to talk to pain practitioner colleagues.

After lunch, **David Ray** encouraged **Sonny Mowbray** to beam up *A Consultant's Logbook: Its a Log Jim, but Not as we Know It* in true Trekky fashion.

Sonny had logged his practice since 1980 and was now using one (*Microsoft Access*) with 98 fields, which he reckoned he could now fill in accurately in about 1-2 minutes.

He had found many interesting pointers to his own practice, particularly in his rates of intra-op. events & critical incidents, allowing him to answer fundamental questions like "Am I Going Through a Bad Patch?" or "Are Trainees Good for Your (or your Patients') Health?"

Sonny also found he had more frequent problems with smokers and with using LMAs in under-1s. He felt he was now able to answer searching questions from both trainees & patients.

Sunny memorably alerted us to Franks Sign (a distinctive diagonal earlobe crease, which is 3x commoner in those with a cardiac history), and which he found produced a 3x incidence in intra-op. events (67% vs 22%) but (surprisingly) half the incidence of respiratory problems normally encountered.

A comparison of trial logs kept by colleagues, first showed his own honest frailty, then his ability to spin a more worthy result! The ultimate is to keep a parallel record with your surgeons - but then might we *all* have to do this with our personal portfolios?

Joyce Stuart thanked us for staging a "touchy-feely" section, in which she considered *Am I My Patient's Keeper? Ageism in ITU.* Joyce, an anaesthetist with a Medical Ethics MPhil, noted most ICU beds do go to patients over 60, but then not to everyone. The doctors dilemma is "Who gets the Last Bed?"

Her demographics showed we should enjoy an encouragingly increased lifespan, but a reduction in the working population has meant problems with the affordability of Health Care, as not envisaged by Beveridge.

Joyce then took us through a panoply of Human Rights Acts, (British, Euro & U.N.) "Right to Life" "Inhuman & Degrading Treatment", noting there were actually no specific rights to health care. Adults have the right to consent to or decline medical treatment, but have no right to demand anything. She also discussed incapacity and current guidelines on withholding or withdrawing treatment.

A complex philosophical talk on equity & differing theories of ageism (including poor survival in certain illnesses & QUALYs) ended by considering two patients, Jessica & Jane, one young with kids & one elderly "competing" for that last ICU bed.

Maybe, she thought, it often boils down to a basic question: should doctors resist making these difficult choices & just treat the patient before them?

President **Farquhar Hamilton** then introduced Gillies Lecturer **Stuart Ingram,** who gave a most excellent address (which follows) on aspects of patient safety as seen from NCEPOD. Stuart was presented with a Caithness Glass bowl at its conclusion.

TRAINEES PRIZE 2002

Up to five papers will be selected for 10 minute presentations at Peebles in April

The top paper wins £250 and its author will be invited to return to Peebles in 2003 as guest of the Society

Further prizes will be awarded to finalists

Details from the Secretary, Neil Mackenzie at Ninewells Hospital

Entries to be submitted by the end of February

JENNY MEEK,
JUDITH STEEL
GORDON DRUMMOND
& IVAN BRENKEL

IAN POWER
LESLEY COLVIN
& JOHN WILSON

SONNY MOWBRAY,
JOYCE STUART
& DAVID RAY

SCIENTIFIC MEETING, HALBEATH, DUNFERMLINE

STUART INGRAM
GILLIES LECTURER 2001

GILLIES LECTURE

Quality & Anaesthesia How Do We Judge?

Stuart Ingram

University College London Hospitals
& Principal Anaesthetic Coordinator of NCEPOD

The first responsibility for anyone charged with giving an eponymous lecture is to remember the man (or woman) in whose name the lecture is to be given. Here I start at a disadvantage, coming as I do from south of the border and having had in my anaesthetic career no immediate association with Scotland. My first action therefore, on being invited to give the Gillies Lecture for 2001, was to contact Bill Macrae to seek his guidance and I am grateful to him for this photograph of John Gillies. When he, himself, gave this lecture, he was able to refer to his own personal recollections of John Gillies. I however, can only go back to the information that still resides tucked away from study many years ago for Final Fellowship.

For me, the name of John Gillies is linked with controlled hypotension in anaesthetic practice and more particularly with the term *physiological trespass*. John Gillies started giving anaesthetics in the 1920s and was formally appointed in Edinburgh in 1932 but it was in the post-war period that the concept of controlled hypertension developed, achieved popularity and became an established part of anaesthetic practice. In my own formative years as an anaesthetist in the early 1970s it was widely used. As a registrar at the Westminster I learnt how to lower the blood pressure with Professor Sir Geoffrey Organe and the influence of Hale Enderby and his techniques was widespread.

Controlled hypotension – a question of judgement

In setting out to ask how we can judge the quality of anaesthesia I would like to take *physiological trespass* as my starting point and, as I will a number of times in this lecture, begin by looking back to what today seems to be a historical publication. Nevertheless I believe that it gives us a useful point from which to begin to see some of the difficulties. In 1977 a Dr Kerr[1] published a paper in the British Journal of Anaesthesia. He described 700 patients in whom he had given profound hypotension to enable the surgeon to carry out middle ear surgery with a blood free field. Although 700 patients are described in the paper, as the text makes clear, Kerr probably anaesthetised almost 2000 patients using this technique.

Table 1 shows the levels of blood pressure achieved in female patients (the paper contains similar data for male patients). It has on the left the values of systolic blood pressure achieved, and as can be seen they range down to less than 30 mmHg *systolic* blood pressure. Across the top of the table are labelled columns showing the age groups of patients ranging from 20 to over 60. The values given are the number of patients in whom it was judged that haemostasis was satisfactory for each level of hypotension achieved within different age groups and in the brackets, for each group, the total number of patients.

Table 1

FEMALE PATIENTS IN WHOM SATISFACTORY HAEMOSTASIS WAS OBTAINED

Systolic B.P. (mm Hg)	AGE 20-29	30-39	40-49	50-59	>60	Total
70+	0 (8)	0 (3)	0 (4)	0 (4)	0 (0)	0 (19)
60+	2 (5)	1 (6)	1 (3)	0 (0)	2 (2)	6 (16)
50+	6 (10)	9 (11)	10 (15)	14 (15)	5 (5)	44 (56)
40+	42 (43)	46 (48)	55 (56)	36 (38)	12 (12)	191(197)
30+	3 (3)	10 (10)	27 (28)	42 (42)	17 (17)	99 (100)
<30	0 (0)	1 (1)	6 (6)	14 (14)	11 (11)	32 (32)
Total	53 (69)	67 (79)	99(112)	106(113)	47 (47)	372(420)
% of all	76.8	84.8	88.3	93.9	100	88.6

For younger patients who had relatively higher levels of blood pressure, it can be seen that the proportion considered to have had satisfactory haemostasis was not all that large. Whereas, by contrast, in older patients and particularly in those over 50 where a very low levels of systolic blood pressure of less than 50 were used, satisfactory haemostasis was almost always achieved. This is obviously not surprising. But what is perhaps surprising was that there were 84 female patients over 50 who experienced hypotension to systolic levels below 40 and of these 31 were taken to systolic pressures below 30.

It is not my purpose here to comment on or criticise in anyway the techniques used by Dr Kerr so many years ago. I have been told by those who knew him that he was a fine & very conscientious anaesthetist and one certainly has to respect him for carrying out this technique without a death on the table with only the aid of an oscillotonometer & an ECG, and also in publishing his results.

My purpose in referring to this paper is rather to use it to ask some questions. Firstly who should judge on the need for such low levels of blood pressure? If it is the surgeon, and the evidence here is that that was the case, then I think most anaesthetists today would not consider that to be a satisfactory state of affairs. Is there a concern here about patient consent? In what was then a paternalistic era of the doctor/patient relationship, if the doctor believed this to be right then it was acceptable. But today, if such low levels of blood pressure were believed to be justifiable, then clearly a full explanation to the patient would be necessary. Might this discourage such intervention? If so is this a healthy development or not? Does it not lead to a very conservative pattern of practice in which innovation is frowned on? From the professional point of view peer opinion would probably be accepted as the most satisfactory basis for judgement. Other anaesthetists would look to audit and the published literature in making an assessment but here is Kerr providing the evidence of the safety of his technique. He was able to conclude "during this series no patient appeared to suffer from cerebral hypoxia as a result of being subjected to this technique, even on repeated occasions in some cases" and that "all patients have been examined in outpatients after the operation, sometimes at intervals over many years, and in no case has any resulting mental disturbance been detected." Does this provide sufficient evidence to justify use of the technique?

Here matters might have rested were it not for one patient, Mr Hepworth. On 25th October 1979, Mr Hepworth had an operation for middle ear surgery; Dr Kerr was the anaesthetist. Immediately following the operation he had difficulty with mobilisation and walking. He was seen by a neurologist and later by a psychiatrist, and it was suggested that the problem might be hysterical. On 8th November the patient, clearly exasperated by the lack of explanation for his difficulties which required him to use a Zimmer frame to walk and had left him with bladder and bowel problems, discharged himself.

It fell to his GP to refer him to a neurosurgeon for admission and investigation, which lasted until February 1980. At the end of this time he was discharged, being told that he probably had a vascular lesions in the spinal cord which had bled and that it was chance that it was associated in time with his operation. In April 1980, Mr Hepworth saw a solicitor but was told that a claim was unlikely to succeed as there was no clear evidence of any problem related to the operation.

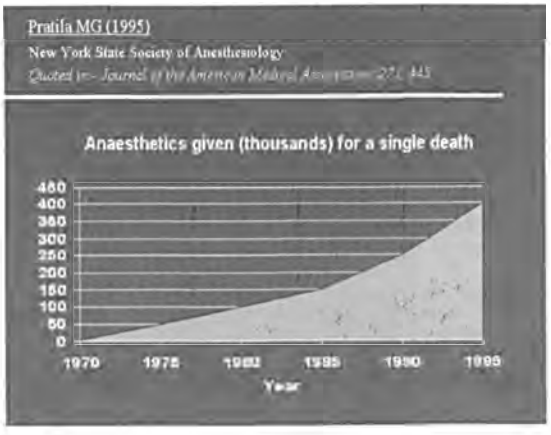
In 1987 he changed GP and his new doctor suggested that he saw another solicitor. Medical reports were obtained, including one from an anaesthetic expert. The link was now made between Mr Hepworth's anterior spinal artery syndrome and Kerr's anaesthetic technique, as the expert was aware of the published series. In July 1989 a writ was issued but there were legal delays as the case was out of time and it was not until 1994 that it was agreed that an action could be brought. In the intervening period Kerr had retired and his notes and records had been destroyed. Eventually there was a full hearing and the judge found that "the anaesthetist was negligent in reducing the patient's blood pressure to 40 mmHg for a period of one-and-a-half hours to provide the surgeon with a relatively blood-free field where no proper scientific validation of the technique had been provided". Mr Hepworth received just under one million pounds in damages.

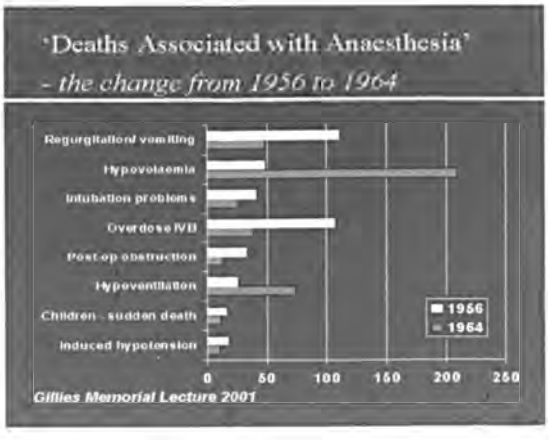
There are, I would suggest, two points of interest. Firstly, it would have been quite possible for the link between Mr Hepworth's neurological deficit and his anaesthesia to go unrecognised. It is perhaps paradoxical that it was only by publishing his series that Kerr enabled this to occur. Secondly, there can be no doubt that the knowledge of a complication such as this changes our perception of the safety of Kerr's technique, even though this is only one of 2000 cases.

Clearly judgements around an issue such as induced hypotension during anaesthesia are complex, might we not do better to look at a more clearly defined end point and more robust research methodology.

Mortality and anaesthesia

Deaths directly attributable to anaesthesia have progressively declined. Prior to 1970 a figure of one death for every 7500 anaesthetics was quoted but today the figure is certainly less than one death for every 200,000 anaesthetics and it is probably closer to one in half a million. This is an impressive improvement, to what can it be attributed?





In 1954 Beecher and Todd[2] published an important study of deaths associated with anaesthesia and surgery. They examined nearly 600,000 anaesthetics that were given in 10 University Hospitals over a five-year period between at 1948 and 1952. Eleven full-time secretaries were involved with the data collection and 21 physicians, mainly anaesthetists, devoted much of their time to the study. The considerable funding required came from the US Army.

In all 384 deaths were identified where anaesthesia was assessed to have played a large part in the causation, and there was one death for every 2680 anaesthetics where anaesthesia was deemed to be primarily responsible. The authors extrapolated this figure to the whole of the United States based on the number of anaesthetics that were then being given and arrived at a figure of 5128 deaths per year which resulted directly from anaesthesia. They identified this as a public health problem.

The data had been carefully collected and there is no reason to question these numerical calculations. However the conclusions that were drawn are, with the advantage of hindsight, very much more questionable.

The authors noted that where muscle relaxants were not used the death of rate was one in 2100 but when these drugs were used, the death rate rose to one in 370. They suggested that muscle relaxants, which at that time were establishing their place in anaesthetic practice, must be associated with some as then unrecognised disastrous side-effects. But it can be seen from their data that of the 44,100 cases where relaxants were used, only just over 13,000 cases were given controlled ventilation.

The problem was not with the drugs but with the understanding of the appropriate way in which they should be used. The point I would make in relation to the study, is that although it demonstrated a thorough collection of evidence that we would now hold up as 'gold standard', it did not prevent the conclusions that were drawn from being essentially worthless.

Qualitative versus quantitative data

Where then at this time was evidence being accumulated that did result in an improvement in the quality of anaesthetic care? At the annual general meeting of the Association of Anaesthetists in 1949 it was decided to set up a voluntary and confidential method for reporting deaths that occurred where anaesthesia may have contributed to the death. This was in order to enable a broader analysis of the factors involved to be carried out.

Eventually 1000 deaths were collected and analysed in a key paper by Edwards et al[3]. By looking at this qualitative data they were able to conclude that anaesthesia was the causative factor in 59% of these deaths. The failure in these 1000 cases were identified as follows:

- 110 regurgitation and vomiting
- 107 overdose of intravenous barbiturate
- 49 obvious under transfusion
- 33 post-operative respiratory obstruction
- 41 mishaps associated with intubation
- 26 gross under ventilation
- 17 induced hypotension

The identification of the morbidity related to the aspiration of gastric contents as a result of regurgitation and vomiting in this study was the impetus for Sellick to describe the use of cricoid pressure as a preventive measure.

Subsequently a further 600 deaths were collected and analysed by Dinnick[4] and it is interesting to compare the changes that had occurred from the earlier study. Of the 600 deaths collected, 400 were judged to be caused by anaesthesia.

The failure in these 400 cases were identified as follows:

- 209 low blood volume
- 74 under ventilation
- 48 regurgitation and vomiting
- 38 collapse after intravenous barbiturate + relaxant
- 26 mishaps associated with intubation
- 33 post-operative respiratory obstruction
- 11 sudden death in children
- 10 induced hypotension

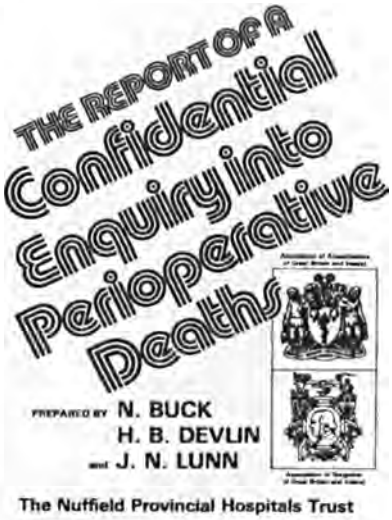
Both studies can be criticised for their lack of denominator data but nevertheless they did influence and improve anaesthetic practice.

The analysis of anaesthetic related mortality was taken forward in the seminal study of Lunn & Mushin[5] – *"Mortality Associated with Anaesthesia"*, published in 1982. Based on specific regions in England, it examined deaths within 6 days of an operation. Despite a guarantee of confidentiality, surgeons declined to take part, but the issue of a denominator was addressed by using the then available hospital activity data. The conclusions that where drawn, in terms of the areas where there were deficiencies in an anaesthetic care, related primarily to organisational rather than clinical aspects of patient management.

- deficiencies in the supervision of trainees
- inadequate monitoring
- poor anaesthetic records
- lack of consultation between anaesthetist and surgeon
- lack of recovery facilities

Whilst we can recognise that in subsequent years monitoring and recovery facilities have improved, the other three issues have reappeared recurrently in subsequent reports and studies.

John Lunn moved forward, and in conjunction with Brendan Devlin a surgeon who had had a long interest in audit, was able to bring both anaesthesia and surgery together in a study that eventually appeared as the original Confidential Enquiry into Perioperative Deaths or CEPOD Report[6] as it became generally known.



Like Lunn's earlier study this related to specific regions in England but the recommendations it made have had an enduring influence on the organisation and practice of anaesthesia and surgery. Its key recommendations were:

- Providers should review their facilities for out-of-hours work and concentrate anaesthetic, surgical & nursing resources at a single location.
- Resuscitation, assessment & management of medical disease take time and may determine the outcome; their importance needs to be restated. Arrangements that permit this in every case are important.
- The decision not to operate is difficult. Humanity suggests that patients who are terminally ill or moribund should not have non-life-saving operations, but should be allowed to die in peace & dignity.
- Operations should only be performed by surgeons who have adequate training in the specialty relevant to the operation.

The first of these recommendations in particular, has progressively influenced arrangements for urgent and emergency cases such that patients should be operated on during the day rather than at night. So called CEPOD theatres are now features in acute hospitals dealing with surgical emergencies. As a direct consequence of Lunn and Devlin's efforts, it was agreed by the Department of Health in London to establish an ongoing Confidential Enquiry into Perioperative Deaths.

I am conscious that the word National attached to this Enquiry places me in some difficulty here in Scotland where you have your own similar but distinctive Enquiry, the Scottish Audit of Surgical Mortality. However, NCEPOD has become part of the surgical & anaesthetic culture in England, Wales & N. Ireland.

National Confidential Enquiry into Perioperative Deaths (NCEPOD)

The protocol that sets out the principles under which the Enquiry carries out its work states:

"The Enquiry reviews clinical practice and identifies remedial factors in the practice of anaesthesia and surgery. We consider the quality of the delivery of care and do not study specifically causation of death. The commentary in its reports is based on peer review of the data, questionnaires and notes submitted to us; it is not a research study based on differences within a control population".

This makes clear that together with confidentiality and the anonymisation of cases, the Enquiry is not setting out to judge the practice of individual surgeons and anaesthetists. As with previous studies there is an on-going issue with regard to the lack of denominator data.

Unfortunately the central collection of data on surgical operations and anaesthetics given in England, Wales and Northern Ireland through the Hospital Episode Statistics has long been lamentable. Inaccurate data has been collected often because inadequate resources have resulted in local data entry being carried out by inexperienced clerical staff with a very limited understanding of the activity they are coding. This is being addressed and the data is improving, it is now beginning to be used as a denominator by NCEPOD.

Since 1990 NCEPOD has published annual reports based on samples of the approximately, 20,000 deaths reported that occur within 30 days of a surgical operation. Recent reports are shown here.

1994-95 Report, published September 1997
- *Deaths within 3 days of surgery*

1995-96 Report, 'Who Operates When'
- *Times of surgical operations*

1996-97 Report, published November 1998
- *Specific types of surgery*

1997-98 Report, 'Extremes of age', published November 1999
- *Children up to the age of 15 years [excl. cardiothoracic]*
- *Patients over the age of 90*

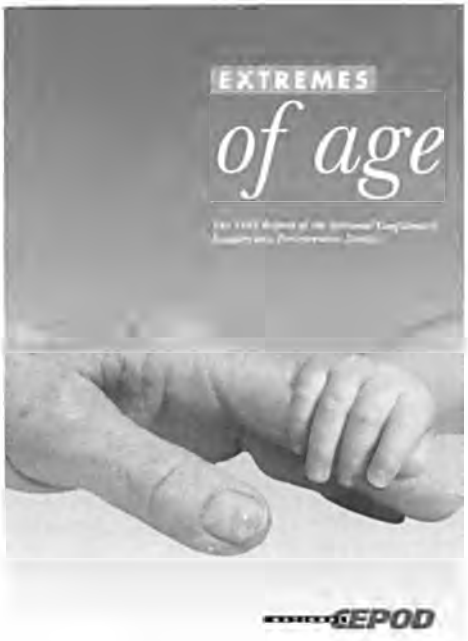
1998-99 Report, 'Then & Now', published November 2000
- *Random sample of 10% of all cases*

How then has NCEPOD influenced the quality of anaesthesia through the judgements that it has made?

In the report published in 1998, which examined specific types of surgery, all head and neck cases were looked at in detail. Among these were 40 cases where patients had stridor at the time of their operation, they did not die as a result of the anaesthetic management but due to the underlying disease, which was generally a malignancy. However, we were able to examine with our advisers, the anaesthesia in these cases and I think you will agree that it is difficult to envisage by what other method such a large sample could have been collected.

Having the anaesthetic records, we were able to look at the techniques chosen, and it was clear that there were a number of aspects that could be improved. Inevitably there were cases where the planning between anaesthetic and surgical staff could have been better but also it was clear that in those centres where fibre-optic equipment was available for intubation, and there were anaesthetists experienced in its use, the management of these cases was facilitated. We could also see that in five cases where there had been difficulty with the airway, it had eventually transpired that there was more than one lesion within the airway and this had not been appreciated when anaesthesia were started. Thus we could make a recommendation that whenever possible, CT-scanning of the whole length of the airway, from the teeth to the carina, should be obtained before anaesthesia was started.

In our report the following year, "Extremes of Age", it was clear that in the paediatric group, anaesthetic & surgical management were almost universally excellent. However, in the elderly, patients over the age of 90 years, there were aspects of care that could be improved.



Co-morbidity was high, with more than half of the patients having cardiac and more than a quarter having respiratory problems. Whilst a high mortality was to some extent inevitable, there were simple aspects of care where more attention could, in our view, have led to there being more survivors.

One of the most obvious was fluid balance where documentation was often poor and where many patients had large positive fluid balances in the postoperative period.

The largest group of operations in these patients were orthopaedic, particularly fractured neck of femur, and it is the reluctance of orthopaedic surgeons to have their patients catheterised that leads to many of the difficulties.

We found it difficult, as anaesthetists, to understand the prejudice against urinary catheters, based on a belief that they were more likely to increase the infection rates when a hip prosthesis had been implanted, when the alternative in many cases was to have the patient lying in a perpetually wet bed. Apart from this obvious problem, the lack of a urinary catheter made the assessment of fluid balance almost impossible.

It was our opinion that fluid management should be accorded the same status as drug prescription. It is as easy to kill a patient with excessive intravenous fluid as it is with excessive opiate.

I would suggest then that this process of case collection and peer review does provide the opportunity to identify areas where quality can be improved. It is perhaps disappointing that many of these are simple and fundamental.

Informing the public

The public, as we are continually reminded, demand ever better health care. They are increasingly intolerant of what they perceive to be deficiencies in the NHS. This has been fuelled by the press. We ourselves, by being honest about the deficiencies in our current practice, provide ammunition to those who wish to attack us. When this results in biased & distorted press reports, the consequence is the demoralisation of all health professionals. Politicians believe a better-informed public will be able to make more informed choices about their own care.

League tables and similar information are seen as being an appropriate way to inform this choice but evidence elsewhere indicates that whereas health professionals may be concerned about the place of their hospital within the publish data, in general, the public find it hard to understand or be influenced by this information.

It may sound like a regression to the paternalistic past, but modern health care and the choices it affords, are too complex for most patients under the pressure of illness to make alone. Whilst doctors will seek to explain and discuss issues, they themselves will be biased for and against particular treatments. So called informed consent, as any anaesthetist knows, is in many ways a mirage.

When trying to understand these public perceptions, it is of help to consider our own actions when we ourselves are patients. With our inside knowledge, we can seek out competent colleagues, but to be comfortable when placing one's self in the hands of a fellow doctor, I would suggest that aspects of their character are equally important to us. Our trust is dependent on qualities of openness, honesty and integrity in our colleagues.

Clinical Governance (see colour figure over)

We do not work in isolation; the facilities & colleagues around us are crucial in enabling us to do our best. When an individual performs poorly, one has to ask if it is the doctor that is dysfunctional or hospital & department within which they work. In England this has led to the concept of "Clinical Governance".

This is seen as a process of a continuous improvement by providing various aspects of support linked with individual assessment. At the core is a management culture, which is open, participative, and blame free.

At once one is struck by the fact that currently management in most hospitals demonstrates anything but these qualities, immediate suspension when problems arise still being far too widespread.

However, brushing over this, we then have the various supportive arrangements. Audit is well established and ideally should change practice both collectively & individually.

Better evidence based guidelines & protocols, the wish to learn lessons from critical incidents and the concept of risk management, which in England is linked with the Clinical Negligence Scheme for Trusts (CNST), provide other supportive aspects variously inter-linked to underpin the work of both the organisation & the individual.

Thus for the clinician there is the encouragement to produce of their best by developing the habits of continuing medical education and lifelong learning. By contrast if the individual's performance becomes unsatisfactory there is sympathetic support to assist them. These concepts are all excellent but their delivery will depend on commitment & resources.

But are not good departments & good anaesthetists already doing much of this? Should we not be asking ourselves, before we become too overcome by the flow charts & exhortations, why some are motivated and some are not?

Are there not essential qualities of character & individual conscience which are bred & educated into us and if they are missing once professional life is started, then without their instinctive influence there will always be a risk of lapses in professional behaviour and this combined with a lack of insight, eventually results in a problem doctor.

Conclusion

Bringing together the various concerns that I have touched on.

Objectivity and judgement

- **A knowledge of an adverse outcome will inevitably bias the judgement of a treatment or intervention.**
- **The nature of the anaesthetist's dual responsibility to their patient and the needs of the surgeon make the judgement of quality in anaesthesia complex.**

These are the problems raised by consideration of Dr Kerr's practice. They are not, I would suggest, easy to deal with.

- **At present, the multiplicity of factors linked with anaesthesia prevents objective judgement.**
- **The complexity & inter-relationship of factors in modern patient care make analysis particularly difficult & complex.**
  We seek simple solutions, which are just not there.

Ultimately as the various variables can be individually assessed, this will in time be solvable, but that time is a long way off.

Assessing data

- **Statistically strong data can be as easily misinterpreted as purely qualitative data.**
- **Increasingly we are becoming obsessed by process in health care and a wish to see all issues only in numerical - frequently monetary - terms.**

At present a careful & honest analysis of practice continues to provide an effective method of improving quality. Flawed analysis of poor data and a lack of understanding & objectivity in the analysis of good data, can both lead to erroneous conclusions.

The mistakes of Beecher & Todd should not be forgotten.

Public and press opinion

- **The public and press lack the ability to objectively assess health statistics.**
- **Press and public obsession about poorly performing doctors, which has taken over the medical establishment, is a very tiny tail wagging a very large dog.**

Whilst public pressure can, because of the direct political control of the NHS, provide more resources to improve all aspects of health care including anaesthesia, it is not a suitable yardstick by which to judge care in complex areas of medicine. We should not be inhibited in a belief that within our own sphere of expertise, we really do know best.

We should select trainees carefully as professional qualities are difficult to instil later in life and we must remember the importance of the trainer as a role model. We can also utilise peer pressure more effectively as a mechanism for ensuring conformity to professional values.

Ultimately quality in anaesthesia depends upon the quality of those practising it: good anaesthetists *care* about their patients.

We do well to ask ourselves what were the qualities in men like John Gillies that made colleagues wish to remember them?

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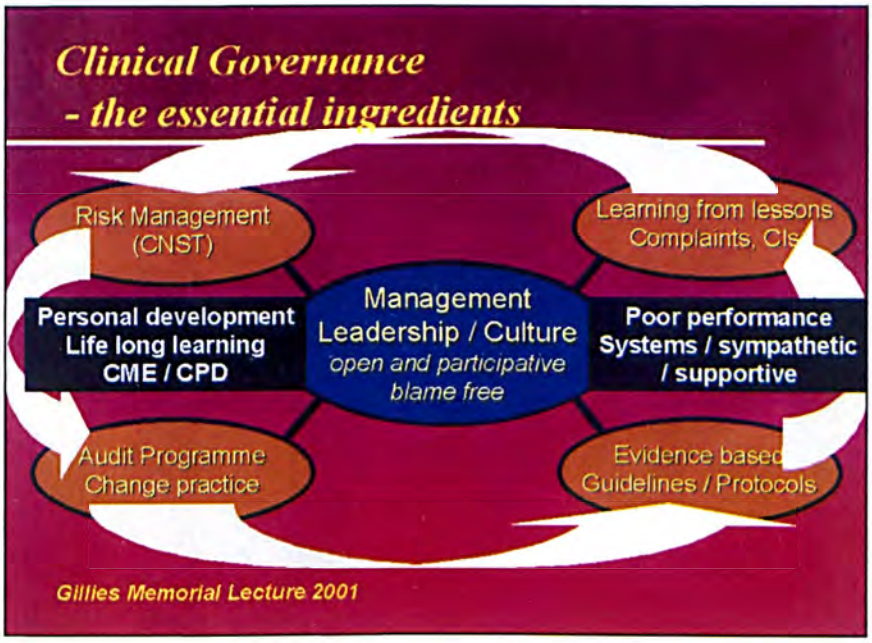

THE PRESIDENT HANDS OVER THE CAITHNESS GLASS BOWL
TO GILLIES LECTURER STUART INGRAM

AUCHTERARDER WAS A SPLENDID SETTING FOR A FINE DAY'S GOLF

FARQUHAR CONGRATULATES OUR 2001 CHAMPION DAVID MARSH

GOLF DAY

at Auchterarder, June 2001

by our Golf Correspondent A. Wee Divot

Our annual SSA Golf event was held at this most lovely, economical and conveniently central club, yet attracted only 16 golfers. There was no-one from Aberdeen and only one working colleague from Edinburgh & Glasgow. What a change from past years! Are our rotas so tight and are we in danger of working ourselves too hard? Golfers, please look at all those happy faces and make a point of trying to get to the 2002 event, especially when we are to be visiting such an excellent venue as East Renfrew.

Having got that mump out of the way, I can now report that we had a great day!

The Stableford was won by David Marsh from Glasgow with a terrific 38 pts. Duncan Forbes & Iain Gray were joint second on 36 points. A fair spread of further scores followed!

The West v East game involved placing some refugees but achieved the same result as last year - East won 21/2 to 11/2

Robin Allison & Eddie Wilson (back nine 30) beat John Vance & Alex Reid 5/4

Duncan Forbes & Farquhar Hamilton halved with David Marsh & Paul Wilson

Charlie Allison & Iain Gray beat
Michael Crawford & Steven Lawrie by 2 holes

Sandy Buchan & Iain Levack
lost to Rae Webster & Ian Johnston by 1 hole

The President thanked Auchterarder GC for both the first-class condition of their course & the excellence of their catering, before presenting prizes to the winners.

Next year we go back West, with a fond hope that we'll return to the glory days - please put the date in your diary now! There are (so far) no CME points but the relaxation & bonhomie is immeasurable.

The 2002 S.S.A. Golf Outing will be held

at East Renfrew G.C.

on Thursday June 20th

Meeting at 9am for a 9.30am tee time

This year's Organiser is David Marsh, Southern General Hospital, Glasgow

around the regions

MANY THANKS AGAIN TO OUR LOCAL SCRIBES FOR ALL THIS GOOD-HUMOURED INFORMATION

INVERNESS Isobel MacKenzie

"My heart aches & a drowsy numbness pains my senses as though of .....?.....I had drunk."
a. Horlicks b. Horseradish c. Highland Park d. Hemlock

Last summer we welcomed Joost Leeuweengerg as a Consultant Anaesthetist to Caithness. We wish him a happy tenure there, where the roots of the place names are as Nordic as his own. Ken Barker filled a new post at Raigmore. His skills in advanced plexus blocks & fibreoptic intubation are a resource to trainees and (thankfully) at times to senior members of the department. In addition, with the advent of the Highlands MRI Scanner imminent, Ken has taken on the responsibility of equipping the associated anaesthetic facility. We've also been privileged to appoint Keith Veasey to a Staff Grade job - his special interest in Intensive Care Medicine has been a great asset.

Jacqui Howes, with our new Acute Pain Sister Jackie Milburn, has been organising & tuning the Acute Pain Service with great benefit to education & our patients. Jackie Milburn's purposetul stride & kindly, but firm manner reminds some of us of the times when gleaming white aprons crackled with starch and Sister's word was law. She's a lady who gets things done! Jacqui Howes also nobly took on the pencil chewing rota-making task of Deputy Head of Service, freeing Nial Hennessy for the serious committee work he hitherto longed to accomplish. Jacqui is also attempting to drag us into the future by setting up a Nurse-led Anaesthetic Assessment Centre with consultant sessions deep in the untrodden corridors of outpatients.

Our ICU expanded to 6 beds - well sometimes - depending on skill mix, sick leave & maternity leave (there seems to be a lot!) It still seems we never have enough ICU beds. Fortunately, however, there was one available in October, when we admitted a distinguished visitor who had been accidentally poisoned. Not since the famous case of the *Botulism* sandwiches from the Loch Maree Hotel has there been so much fuss in the newspapers about a poisoning in the Highlands.

Luckily, Richard Johnston was the man for the task: he remembered the ABCs & cranked up a machine beginning with H. It all ended happily, with a mention in dispatches to the Scottish Health Minister from our grateful patient. The emerging evidence-based Hillwalking Protocol involves an orange and a bar of Cadbury's Whole Nut.

On the horizon, we have noticed a faraway look in the eyes of Howard Spenceley recently, dreaming perhaps of a foaming bow wave, a salt spray on a tight mainsail, a fresh piste lit by a rosy dawn or the vineyards of Epernay. The telephone has been ringing with half-remembered voices hazily pictured as the fresh-faced registrars of 1995. The Highlands are still beautiful and, despite the events of Sept. 11th. (seen live by some of us on television in the theatre common room after an over-running morning list), we are hopeful of 2002.

DR. GRAY'S, ELGIN Colin McFarlane

Our local charity Marafun (5 x 5.2 miles) was very exciting this year in that we beat our physicians by at least one second, to remain the fittest & best looking department in our hospital.

We must also be the furthest-travelled, with the number of transfers to ITUs across the country at an all time high. Just remember to take the Laerdal bag, plenty oxygen, plenty relaxant, plenty adrenaline & a sackful of anti-emetic for personal relief and things will turn out fine. Again we thank all the Units who have accepted patients this year (grovel).

We continue to develop our acute pain team (Janet), paediatric pain relief (Ian Macd), HDU (Ian H) and George has returned after his excellent stint as clinical coordinator. Chris is now Head of Department & I'm going to direct our next ATLS Course.

ABERDEEN Kathleen Ferguson

It's hard to think where the last twelve months have gone. Like other departments, we have been working hard to keep up with the increasing demands placed upon us. The New Deal & European Working Time Directive are driving us in one direction whilst our political masters pull in the other. Caught in the middle & trying to make sense of it all, are we. Exactly how it all pans out might be the contents of next year's report?

Many of you will know that Ian Smith, one of the Society's longest serving members, retired this year. Events celebrating this number three so far & we're still counting - only fitting for the ultimate socialiser! We wish Ian & Mary health & happiness. Earlier we welcomed Jas Pal-Kerr; we now look forward to Donald Thomas & Lesley Strachan joining our Consultant ranks. Rona Patey has embraced C.P.D. in a drastic way by being appointed Clinical Skills Director for the Trust.

Our trainees have enjoyed (for the want of a better expression) a successful year - almost 100% success in Primary & Final exams. Jamie MacDonald & Egbert Pravinkumar were appointed as Clinical Lecturers working with Nigel Webster in new posts (!) designed for trainees undertaking higher degrees.

At last, foundations for the new Children's Hospital are in place. *Archie* will surely have the best residence in town. The new extension to the Intensive Care Unit has opened & appears vast. Despite this, it still seems to be in constant use.

We are contemplating adding linguistic skills to our personal specification forms to cope with the latest challenge - imported drugs with data sheets that don't have English as their first language - in fact no English at all! Other anaesthetists will have faced the same problem. It is great to note the resilience with which we all carry on in our jobs. Overall we're hale & hearty & ready for the next year, whatever it brings.

STRACATHRO Ian Grove-White

When I wrote last year, I quite expected it to be my last report. I have been working on a short-term contract, pending strategic decisions about the provision of specialist services in Angus, and this appears finally to be taking shape. Despite the endeavours of successive "centralists" to close us down, it has proved impossible thus far to accommodate all trauma in Ninewells and we are still receiving uncomplicated cases here. However this cannot be allowed to continue for long, as the lack of support in medical specialties raises serious "risk management" issues.

The future for Angus is an Ambulatory Diagnostic Centre, likely to be located on the Stracathro site. Much discussion continues concerning surgical workload, and with it the requirement for anaesthetists. Redundancy does not appear to be a threat, and with Donald Thomas heading back North in the New Year, there are already plans afoot to offer Dundee-based anaesthetists fixed clinical sessions at Stracathro.

I wish Annie Donald, Jan Beveridge, Alban Houghton & Charlie Allison every success in the hospital's new role. We all wish Donald well in Aberdeen. I'll be finishing here at Hogmanay, though I plan to help out a couple of days a week in Ninewells (and possibly at Stracathro?) until they are up to strength. Surely this is my swan-song in this column.

NINEWELLS John Colvin

There is generally a much more positive, forward-looking atmosphere in the Department this year. After two frustrating years of difficulty with senior management, Tayside's well publicised multi-million pound debt and the stifling effect of our "Acute Services Review", Jonathan Bannister gladly handed over the reins into the nearly willing hands of Neil Mackenzie. This, coupled with major changes at senior management level, allowed us to redefine our position within the Tayside Trust.

With a little help from our friends, the RCA visitors, management agreed to two new consultants, one to replace Ian Grove-White, and one to address significant under-resource at Consultant level. Farquhar Hamilton decided to move from ICU after many years of distinguished contribution, including 12 years as Leader in various guises & hospital management structures. Following a Pain fellowship in Bath, Dietmar Hartmann made a welcome return as a Consultant in Anaesthesia & Pain Management.

Philip Bolton & Stephen Cole left for consultant appointments in Yorkhill & Lincoln and Shona Neal starts her consultant post in Obstetric Anaesthesia at St. John's Hospital soon. Karen Grimsehl & Phil Neal are leaving by inter-deanery transfer to Plymouth & Edinburgh respectively. We wish them all well.

Cameron Weir returned to continue his training, having spent a very successful three-year research post in the University. He is acting Clinical Lecturer while Carol Macmillan is on maternity leave. Paul Fettes, who joined us as a new SpR, recently took up a post as *Astra* research fellow with Tony Wildsmith. We welcome back John Luck (SpR) & Jaya Chaudhury (a LAT, having worked several months as a PRI SHO) We also welcome Paul Currant, Daniel Franks, Shaun McLeod & Mike Gill to our SHO rotation. We expect several new faces early next year.

Our National Anaesthesia Day was ably organised by Praveen Manthri. Hospital staff, members of public, senior managers & the City's Lord Provost visited a high profile concourse display, outlining anaesthesia's contribution to patient care. John Colvin & Cameron Weir defended current practice in a Radio Scotland documentary on "Awareness under Anaesthesia", due for broadcast in the Spring - how to win friends, etc!

PERTH Shelagh Winship

The remit of reports this year included "tales of struggling or malaise"; but our year has been a string of personal successes.

Once again, paternity leave exceeded maternity leave, at least amongst the consultant staff (and long may this trend continue!) Congratulations to Mike, Cliff & Ewan on the births of Gregor, Alice & twins Katie & Claire. Anaesthetists managed to keep to the right side of the orthopaedic blood-brain barrier this year, Shelagh having wisely changed her dance partner, although it is rumoured that Tayside's vasectomy rate has surged. Cliff made his debut as an anaesthetic adviser to Radio 4's *Today* programme. Arthur turned his hand to stunt-driving on the M6, landing gently on the embankment after his first 360° somersault, without a hair out of place. Mountains have been conquered: Dave successfully summitted Mt. Kilimanjaro without, he claims, having to resort to the expedition's supply of Viagra (allegedly carried as a remedy for high altitude pulmonary oedema). We're still fit & healthy (if a bit bleary-eyed in some households), with the bike rack regularly filled each morning.

Have there been struggles or malaise? Well there are never-ending staff shortages disrupting theatre work. It is tempting to say "I told you so" to the policy of whittling down experienced senior (expensive) staff and replacing them with inexperienced novice (cheap) staff in the hope that the latter will be trained on the job by the oh I forgot, there aren't any!

But it seems cancellations are a success story in Tayside - as a reward for saving so much money, we've been triumphantly informed that we can open 8 winter pressure beds. (Since 20 beds closed earlier this year, its difficult to get excited about a nett loss of 12 beds!) On the positive side, an expanded HDU opened and is always so full that it needs to be doubled in size again. Ewan is still manfully trying to convince the "Streamline-Patient-Journey" enthusiasts that pre-operative anaesthetic assessment is not an optional extra, while the rest of us still struggle with management-speak jargon.

But the end of the year is nigh, so a toast to, and a prayer for, the sanity of common sense, the insanity of tolerance and a robust sense of humour to see us *all* through 2002.

KIRKCALDY Callan Wilson

There's no doubt this has been an eventful year in Fife. After protracted consultation with staff & the public, the Health Board came down in favour of one major acute hospital, with Kirkcaldy the preferred site. But wait! This is not yet definite, as we're into Phase 2 of Consultation, where enthusiasts get embroiled in more debate. Thereafter we'll wait for political machinations and maybe then arrive at a final decision. It should be remembered that developing the Victoria was the medical-staff preferred option in the 80s, over-ruled in favour of the Queen Margaret building, which eventually opened 10 years later.

Meanwhile lack of maintenance showed its effects at Forth Park Maternity Hospital and a committee recommended maternity be transferred to one of the major acute sites. We live in hope this issue of an isolated unit is taken care of first, once the major acute site is chosen.

With the exodus of half of Fife's general surgeons to better pastures (?) it was thought not viable to have two acute G.S. sites, so all acute surgery was transferred to QMH. I'm sure that part or most of the reason was to make legal trainee rotas possible. Inevitably this leaves our VHK physicians feeling very isolated as their acute admissions include significant numbers of surgical patients in the 11-12,000 yearly case load. The ITU at QMH is also being extended to 8 beds. Our Division benefited as a result of this change, since we co-operate more than we used to, in working together on both sites. The downside is that we had to increase our call commitment, on top of a continuing need for consultants to be resident first on-call from time-to-time. One soon discovers how awful junior hospital doctors' accommodation is!

A contentious issue has been providing weekend trauma sessions. Surgeons believe that for anaesthetists these should be treated in the same way as weekday 9 to 5 sessions! Not that they themselves do, of course - sessions are part of their "on-call". Unfortunately, neither the Association or BMA appear to have a strong view. Practice does seem to vary widely round the country, so maybe this is an issue that should receive attention.

As if these problems weren't enough, our Victoria Hospital secretary of many years standing retired. It wasn't until Anne Bartholomew left, of course, that we realised how much she'd kept things flowing & us in control! Pat Mouat, an associate specialist, also retired after 20 years stalwart service managing the trainee rota. She had a high standard of anaesthetic practice and, being very dependable, was an asset to our department. We have been pleased to welcome two new consultants - Mike Dockery to replace Pat and John Donnelly, in place of Staff Grade Manish Adke, who has moved to England.

Finally, Medical Education in Fife is now in the capable and worthy hands of anaesthetists. Sonny Mowbray (in VHK) & Phil Roddam (QMH) both became Postgraduate Clinical Tutors.

FALKIRK Gordon Wardall

Having survived a difficult six months or so, with unfilled trainee & staff grade posts & a reliance on scarce locums, we are now enjoying a period of relative stability. However, like our Stirling colleagues, our greatest problem remains that of providing an emergency service to all parts of a busy DGH (ITU, obstetrics, theatre, resuscitation, transfers etc.) with a single resident anaesthetist, a situation that can't continue much longer.

Staffing problems are likely to get worse, both in our specialty & others. This, combined with the pressures on obstetric services & the effects of the European working time directive for consultants & trainees, may well result in such a crisis of acute service provision within the next few years that political/bureaucratic fudging & prevarication become irrelevant.

We have had no consultant changes. Jonathon Richards is now Chairman/Lead Clinician, setting a fine example to us with his enthusiasm for mountaineering, the outdoor life & sporting activities in general - a model we mostly fail to follow. Henry Robb does departmental rotas in his rather unique way: neither rota demands, nor the passing of four years since he was Chairman, have in any way diminished Henry's enthusiasm for writing irate letters to management on a wide variety of subjects.

Not long ago, there was renewed optimism in Forth Valley that at last progress was being made in Acute Service reorganisation, with apparent acceptance by the then Health Board of the need for a single new acute hospital on a greenfield site. However, it transpired that this was only one of numerous options, all of which have been looked at repeatedly over the last 10-20 years. We are now told that the preferred option will be announced in September 2002. Nobody is holding their breath.

STIRLING Crawford Reid

There is very little to report from Stirling. We've had no change in Consultant staff, while at trainee level John Luck returned to Dundee as an SpR. Nath Vemuri returned to India. Both moves were the result of final FRCA - congratulations to them both. Congratulations also to Sarah Aturia & Andy Crockett for their success in the first part. We welcome Dawn Harrington as Staff Grade and Nish Nath as SHO.

We still await a sensible decision about the location of future Hospital services, the medical staff agree that a new hospital at Larbert is the only viable solution, but we'll have to wait and see.

EDINBURGH ROYAL David Ray

We have grown significantly in name & size (but not in girth!) We are now the Department of Anaesthesia, Critical Care & Pain Medicine - this has resulted in a larger stationery bill, as there's now less available writing space on paper. Our consultant numbers increased by five: Joy Allison & Rhona Dornan joined the cardiothoracic band from Leeds & a long-term Edinburgh locum; they'll be joined by Sheena Millar, once she completes her tan in Melbourne.

Brian Cook returns from out West & Ishrat de Beaux from down South to bolster numbers in ICU & Transplantation. Male trainees are grateful to Brian for showing it's still possible for a male to be appointed as a consultant in Edinburgh! These additions have been offset by John Donnelly's departure to Fife (apparently travel to Celtic Park is easier?) and the partial retirement of David Beamish. The numbers of babies delivered to/by/in the Department is keeping pace with the increase in staff, though this may not achieve statistical significance.

As usual, several of our trainees are researching how anaesthesia is administered in warm, far-flung tropical climes. We only hope they will return in time to make our rotas band 2A compliant. In exchange we have welcomed trainees from as far afield as Belgium, Greece, Australia & even Glasgow. The academic department is thriving with the appointment of John Wilson, Bernhard Heidemann & Claire Hutchison as lecturers, and several individuals are working towards higher degrees.

The opening of Phase I of the new Royal Infirmary draws ever closer. Elective orthopaedics moves first in January, followed by not-so-elective obstetrics & gynae in March. All those who have visited theatre & critical care areas have had many concerns resolved, though we have yet to be convinced that there will be sufficient appropriate, new equipment available to deliver the quality of service wished. As a result, there is an increasing feeling of anticipation & excitement (and a little tightening of sphincters) about the move. Office accommodation & computer access have been guaranteed, on-call rooms & car parking have not. There is no truth in the rumour that the Dept. is purchasing two houses close to the new site, to run one as a sandwich bar & the other as a pub; property prices in Edinburgh are beyond the reach of our social fund at present!

WESTERN, EDINBURGH David Wright

A year of change has brought new & better surroundings and an expansion in consultant numbers. We moved into the new £40m Anne Ferguson building, which houses amongst other facilities, new in-patient & out-patient theatre suites, a new surgical HDU adjoining the main theatre recovery room and, for the first time, a purpose built anaesthetic department with offices, library, coffee room, room for trainees & even our own photocopier. Ward accommodation, particularly Urology, is much improved & development is much appreciated, by staff & patients alike.

Following a College visit & a detailed look at our workload, there has been a welcome increase in consultant numbers - by the beginning of next year we hope to have 21 consultants in post. Evan Lloyd retired, ending a career which had seen him transfer with the Breast Service from Longmore Hospital to the Western. With his & Nick Gordon's replacement & other new appointments, we've welcomed five consultants since our last report.

Lesley Colvin, with her Pain Management interest, started last December and Caroline Brookman moved from a locum to a substantive post. Alexandra Stewart started in July, Debbie Morley in December and Mike Robson begins in March when he returns from Australia.

We're now in two directorates: Anaesthesia/Pain Management and Critical Care. We welcome ENT from the City Hospital soon, but details need to be finalised. As for other changes, in line with the Grand Plan, who knows? A very positive year - we wait to see what the future holds.

ST. JOHN'S, LIVINGSTON Duncan Henderson

We continue to expand. Simon Edgar (ex Glasgow) took up post & Shona Neal (ex Dundee) starts soon - welcome to both. The hunt for office space has started. Congratulations to Elaine Watson who married & is now Elaine Martin - Doc Martin to her friends.

Rotas are now New Deal compliant - as predicted, trainees & training have suffered. Lachlan Morrison (CAR) & Mike Brockway (Rotameister) now ensure the smooth running of the Department. It's good to see that three foreign holidays a year are obligatory!

HAIRMYRES Jean Lees

A busy year - the highest stress point being March when we moved into our new hospital. Months of frantic activity led up to this and, in spite of a few inevitable hitches, the flitting went very smoothly. As one expects on moving into a new house, there have been minor structural problems made much of by the press but the working environment is pleasant and a big improvement. Unfortunately national issues of lack of beds, funding and nurses have followed us from the old hospital.

George Davidson officially retired though he'd been off for several months We'd a very enjoyable farewell party and, as he heads for a healthier environment in sunny Spain, we wish him & Christine well for the future. Duncan Allen from the Victoria settled in quickly, taking an active part in departmental activities. Two babies & a wedding (though not in that order or all at to the same person) happily extended our wider family.

We have a well-established Lanarkshire Anaesthetists Group and are able to make stronger representation on numerous issues affecting us all. Day-to-day running continues to be managed within each hospital. We've travelled full circle from the old Health Board, through small Trusts, big Trusts & now back to a Health Board again. Sadly, so far there's been no obvious benefit to anyone, other than the producers of headed notepaper.

MONKLANDS Peter Paterson

Hi from sunny Monklands! Glad to report we continue to keep our heads above water and even make the occasional advance. Apart from universal problems of fitting too many patients into too few beds (some nights Scottish ITU beds seemed liked gold dust), we've had the additional planning & workload involved in two other Lanarkshire hospitals moving to shiny new PFI facilities. Transitional periods were fairly trouble-free & we managed to acquire some "hand-me-downs" from our richer brethren. A significant remaining problem is the rather anomalous situation whereby Monklands continues to provide Obstetric Anaesthesia services to Wishaw General - hopefully reason will see this resolved through time.

Our busy Area Renal service adds considerably to the ITU workload but means we have the pleasure of meeting patients & families from many parts of Central Scotland & beyond. The rejuvenation of our A&E is well underway and should, among other improvements, provide us with better resuscitation facilities. Plans are well advanced for a new ITU & HDU.

Apart from the usual to & fro of trainees, staffing has been fairly stable and there has been only one change at Consultant level. Marietjie Brink, who married in the summer, left for Amsterdam. We are in the process of filling her post. Ralph Cunningham, a Staff Grade, is leaving to seek his fortune outside Anaesthesia. Alastair Naismith & Jo Thorp both attended the 2nd. All Africa Anaesthesia Congress in Durban & found it a very interesting & rewarding experience. Alastair took the opportunity to include a return visit to Malawi, where he worked before Monklands.

We continue to recruit excellent quality trainees, who in turn appear to enjoy their time with us. Three SHOs - Susie Swinton, Choiti Guha & Graeme Miller - succeeded in the Primary. Susie has gone to enhance her CV in New Zealand. Four others recently took the exam - hopefully success will continue. All in all, despite many NHS problems in the new Millennium, we are happy to report a fairly healthy state of affairs here.

WISHAW GENERAL John Martin

We've been told that the metamorphosis & migration of Law Hospital has gone well, and that everything in the new garden is rosy. I suppose we'll just have to believe this and in the meantime ignore the evidence of our own eyes, because we all know that the managers can't have got it wrong.

Meantime, our consultant group goes from strength to strength. Lorraine Bell & Janie Collie joined us recently, and with their arrival the fair sex made further inroad into our heretofore almost exclusively male ranks. We await the appointment of another consultant in the near future to strengthen our obstetric cover, now that Lanarkshire maternity services are based on our patch.

As usual, some of our trainees have moved on to the big city and in common with many other departments, the experience of our juniors gets ever less. Increased consultant involvement in out-of-hours cover seems inevitable. As seems to be the case elsewhere however, our managers are not keen to come to a negotiation table to address this problem. Hopefully next year we'll see some changes as the new consultant contract evolves.

One good thing to emerge from recent changes in Lanarkshire is healthy & increasingly constructive co-operation among the three Departments. Managers predict a single county-wide Directorate in the future, but for once the workers are ahead of them.

GLASGOW ROYAL Alex Patrick

Still we wait patiently in the North Glasgow University Hospitals Trust. No major organisational change has yet occurred and life continues much as before. Douglas Arthur has retired and we have new consultant colleagues in Stephen Moise (cardiothoracic) & Pauline Stuart (general). More appointments have been made: renal physician Keith Simpson will soon give up his I.T.U. commitment & Martin Hughes will take this up, so all our intensivists will be anaesthetists again. In addition, Barbara Crooks starts her consultant post here soon, with sessions largely at GRI, but with some at Stobhill as well. Despite new appointments, staffing seems to be continually at crisis point, particularly due to a shortage of trainees. Things look especially gloomy at present and of course this affects consultants & trainees alike.

The new Maternity Block is up & running. It is very pleasant to work in by all accounts and the transfer went very smoothly. It has been renamed the Princess Royal Maternity Hospital and has recently been officially opened by the eponymous Royal.

It seems a pity that the old name of Glasgow Royal Maternity Hospital has been lost, particularly since the new unit is on the Royal site. However I believe that the locals have renamed it the New Rottenrow, so all historic links have not been severed. Next year, the new Emergency Receiving Centre, and the Plastics & Burns Unit will open on the Royal site and Canniesburn will close.

SOUTHERN GENERAL Philip Oates

It has been strange year. We have a new management structure, a new C.D., but still no decision on the future of South Glasgow acute services. A further period of consultation is planned where the same people will give the same opinions as in the previous consultation process. We only hope the politicians will come up with a decision at the end of it all.

Bill Kerr has stepped down as C.D. after many years of sterling service and has quite honestly never looked happier. I have the dubious honour of taking over as Lead Consultant. Any delusions I may have had about this new elevated position were quickly dispelled by the realisation that my three immediate superiors in the management structure are all consultants in the Victoria Infirmary Anaesthetic Department!

There have been few changes of personnel in our department. John Macdonald returned from his sabbatical year in New Zealand and, if not entirely settled, has at least not gone walkabout yet. If anyone has any unanswered queries about New Zealand & a few hours to spare, don't hesitate to ask him. In terms of junior staffing, there have been many changes of staff but no increase in number. In terms of junior doctors hours, our rota is about as compliant as a pair of ARDS lungs.

On a more serious note, at the time of writing we are in the midst of a Fatal Accident Inquiry which puts a lot of strain on the whole department Everyone seems to be holding up well & we look forward to better times.

STOBHILL Roger Hughes

Contrary to rumours, Stobhill is still busy functioning as part of North Glasgow University NHS Trust. I'm not sure I can be too bullish about the long-term future: orthopaedics has just moved to the Royal Infirmary site and other moves are planned. We now await the outcome of the Health Board's Strategy Reviews.

There have been several senior staff changes in the last two years. Stuart Macdonald finally retired to the Isle of Man and Peter Slater to Lenzie and the Forth & Clyde Canal. David Ure has been appointed to a full-time post here and Carol Murdoch is shared with the Royal. Colin Rae, again shared with the Royal, is our new Chronic Pain Consultant, working with Bill MacRae. Andy Wood & Barbara Crooks have been appointed to newly-funded joint posts with the Royal.

VICTORIA INFIRMARY Gavin Gordon

Another year & more changes, this time not in personnel but in their roles & titles to reflect a new management structure. In addition to a C.D., we now have a Divisional Chairman (Support Services) in Cammy Howie and a Lead Clinician (Southern General) in Phil Oates.

Administratively we are one with the Southern General, though few clinical areas have been affected yet. In the Anaesthetic Departments there is still much autonomy so that we are at the courting stage rather than wedded together. Consummation has yet to take place, perhaps because we are still living apart and need a home we can both call our own in the shape of a new Southside hospital.

The first clinical changes are due in the next year when ENT & Maxillofacial Surgery move into the refurbished Neurosciences Institute. The clash of cultures could be seismic; no doubt I would enjoy watching the spectacle from the sidelines if I were not so involved in the process. As Gynae is due to move to the Southern in the near future, we look forward to further fun & games soon. My Christmas wish would be for fewer piecemeal changes and a decision to build that single-site hospital soon, which might allow us to move in a single "big bang."

WESTERN INFIRMARY Colin Kuncie

The most notable event of last year in the Western has been the announcement of Peter Wallace's forthcoming elevation to his rightful place as President of the Association. We offer our congratulations and best wishes in his new tasks.

At the coal face, Lorraine Bell & Janie Collie have been appointed consultants at Wishaw, while our new additions have been Neil Storey, John Crawford & Isma Quasim - from the Southern, our own trainee ranks and GRI respectively.

And lots of other things have happened.

YORKHILL John Sinclair

Once again, much coming & some going here. Douglas Arthur has left us, having rounded off his distinguished career by not only being the President of the Scottish Society but also President of the Association of Paediatric Anaesthetists. His coffee room diatribes about management skullduggery will be much missed. We wish him a long & happy retirement, Roddy McNicol, the "Peter Pan of Paediatric Anaesthesia" is now the "elder statesman" of our department.

In order to replace Douglas we needed three new consultants: Pam Cupples, Graham Bell & Phil Bolton - all were previously SpRs with us, but we managed to keep them. We welcome our new specialist SpR - Sarah Bell from Newcastle.

We had one further consultant appointment, this time the first nurse consultant in Scotland. Susan is so dedicated to paediatric pain management that she even changed her name from Fisher to Aitkenhead (*pronounced* ache-in-head) to make it easier for children to remember her! With Susan & John Currie, the paediatric chronic pain service is becoming better established, with increasing referrals from throughout Scotland.

The need to cover more work with fewer trainees, who are able to work less time & are less experienced, is not surprisingly starting to impact on consultant workload. Anne Goldie, who took from Ros Lawson as our new College Tutor, would like any answers to this problem to be sent to her on a postcard.

The PICU is now constantly busy, with the Scottish cardiac surgery service now well entrenched. The new centrally-funded PICU transfer team is however off to a flying start, thanks to the helipad at Yorkhill Quay & Dave Rowney, one of our new PICU transport SpRs who we borrowed temporarily from Edinburgh Sick Kids. The future of the Scottish ECMO service also looks more secure, with central funding having been agreed. All we need now is for our new PICU/HDU to be built so that we have somewhere to put the children.

Looking across the Clyde from the top floor of Yorkhill towards the Southern General, I cannot yet see any new buildings having been started there; so I am optimistic that we will be staying North of the river until next year anyway.

INVERCLYDE Moira Simmons

There have been few changes over the year, only lots of rumours!

Fiona is back from maternity leave and Lew-Chin has taken up here post here after her maternity leave. Fiona has come back to the challenge of organising the department Christmas night out - the social highlight of the year. This year we are breaking with tradition & having it on a Saturday night rather than a Friday.

The department is also set to move location up to the top floor of the hospital. The views towards Arran will be stunning. Between admiring the view from here & from the theatre common room, how on earth are we going to get any work done?

ROYAL ALEXANDRA Barbara Scorgie

It has been a comparatively quiet year here in Paisley, after the great ITU battle last year. It's gone from strength to strength with a fifth bed now funded & regularly filled. Our complement of HDU beds also increased from six to eight, as other surgical specialties benefit from the increased expertise of the nurses. It will be even better when those extra nurses are appointed. The Maternity Services Review for Argyll & Clyde has come to a sticky end, much like its predecessors, with the new Board having no current plans to give it priority on the agenda.

No further consultant appointments have been made, but with the Working Time Directive having been signed off by Management & the appropriate diaries collated, there's a strong likelihood that further appointments will be necessary in the New Year.

David Steel, who retired from full-time employment last year, returned in a "cameo role" on Tuesday afternoons to assist with trauma sessions. Given the enormous amount of trauma our Orthopods handle, we could easily be deemed a Major Trauma Centre. Our juniors continue to do well in exams, with the new bright & enthusiastic consultants driving them (GO ON, GO ON, GO ON, GO ON) to complete all the College requirements.

On a lighter note, in keeping with her new status as Senior Anaesthetist in the Department, Dr. Scorgie's dog Robbie won Veteran Dog in English Springer Spaniels at Crufts 2001, and is now enjoying (the dog that is!) a well-earned retirement at home in Paisley with the rest of his harem!

VALE OF LEVEN Bill Easy

The only certainty is that our future remains uncertain. We don't know if we'll continue largely unchanged, become an ACAD or vanish into the wide blue yonder. We continue to be optimistic & plan positively ahead, as it's difficult to believe the West could be left with no hospital north of the Clyde until Oban.

Geoff Douglas continues as C.D. & clearly does not find it *too* stressful, as he still has hair (capital as well as facial!) He retains an abiding interest in motorcars, *Daimlers* in particular; and is Secretary of the Dumbarton BMA & S.C.H.M.S. Alastair Cameron continues to have a finger in lots of pies, but has relinquished the Presidency of the Glasgow & West Society of Anaesthetists and the onerous position of post-graduate tutor. This should give him more time to pursue apiary, golf & fishing – deserved leisure.

Bill Easy continues his involvement with the Scottish Intensive Care Society as a Council Member & Editor of the Newsletter. He's clearly working too hard for the NHS, as he's had to reduce his farming activities somewhat (or maybe an NHS salary isn't large enough to subside the farm adequately!) Adrian Tully is recovering well from his long spell as C.D. He continues to relax by playing the pipes, fishing (no salmon *again* this year!) and, to restore stress levels, started offshore sailing and hopes to become a certificated skipper soon. Tim Barber still commutes from "south of the river", which does not leave him much spare time for hobbies (or none that he'll admit to!) He still "fronts up" obstetric anaesthesia and is picking up the baton of multidisciplinary meetings.

We continue our happy relationships with Glasgow University, in that we share the services of two research fellows. Lynn Campbell left us for pastures new (Edinburgh) - we particularly miss her sense of humour. Roland Black is still with us – ever sensible & beaming cheerfully! We look forward to Dalia Mitra joining us when Roland leaves.

Staff anaesthetists Eleanor Guthrie & George Kashoulis soldier solidly on amidst all the changes around them. (Staff grades really are the backbone of services in DGHs now). Bobby Brennan felt a sudden irresistible urge to return to his native Ireland – we miss him! He is yet to be replaced.

AYR 'Tales from the Shire' Iain Taylor

The quest has begun again. The fellowship has been formed and the One Ring (our unified directorate) must be flung into the Cracks of Doom. Gandalf, the hairy, wise old man with hippy tendencies (Robbie McMahon) spoke of the need to destroy The One Ring despite the overt opposition from Sauron (chief executive), Saruman (medical director) and their hordes of orcs - smelly & ugly demihumans (middle management).

The fellowship is composed of Legolas, ageing but still frisky elf (Iain MacDiarmid); Gimli, short & hairy one who loves gold (Ken MacKenzie); Boromir, all & proud human of impeccable lineage (Boyd Meiklejohn); Pippin, hobbit of good intentions & erratic temperament (Paul Wylie); Aragorn, unrecognised King of Men with broken sword (old PC) (Iain Taylor) & Sam Gamgee, a faithful hobbit who gardens (David Ryan). The post of Frodo Baggins will be advertised soon (4-day week, DSU, ICU; Vascular/Urology; Orthopaedics with excellent relocation package to The Shire - only full blooded hobbits need apply)

The cause has been advanced by the announcement by Saruman of his imminent retiral from the forces of evil. This weakening of evil should assure the success of the mission of the fellowship in the near future (not that the Tooks & Brandybucks in the North oppose the idea of course). The fellowship will expect to meet Galadrial, elven Queen of Lothlorien (Ruth Jackson), who'll aid them in their endeavours. Just don't give her the Ring or we're all up the Anduin without a paddle.

CROSSHOUSE Alistair Michie

Life goes on in the sunny Southwest (Northern branch), facing the same problems & challenges as everyone else. The good news is we now inhabit vastly improved accommodation & facilities in our new Department of Anaesthesia (*not* Anaesthetics!) It doesn't fulfil all our needs for the size & workload, but hey we're getting there! We have five offices (shared by 3-4 Consultants/Staff Grades each) plus my own C.D. cupboard, sorry office! We even have TWO toilets and a pantry, as well as a comfortable open seating area. If this all sounds a bit sad, its because we had to live in a veritable cupboard for years. Maybe we are right to be paranoid about the status & image of Anaesthesia after all. We also hope to have a new improved, bigger brand-new Day Surgery Unit open in 2003 and the main theatre suite refurbished thereafter.

We welcomed a new Consultant in the shape of Hugh Neil, from the Western. He's settled in well & is already making his mark. Paul Wilson demitted from his role as a Deputy Regional Adviser to become Programme Director for SpRs in the West of Scotland. No doubt Paul will lend his customary flair & efficiency to that office and we wish him well.

Glasnost seems to be slightly in evidence with respect to the Total Ayrshire Anaesthesia Experience. Plans for a "Prestwick Wall" & "Checkpoint Jimmy" have been temporarily postponed, though we hope they hurry up & complete the M77 extension a.s.a.p!

DUMFRIES Hugh Brewster

Like William Shakespeare before him, David Bennie, our long-term scribe has laid down his pen, which, with some trepidation, I dare to pick up.

For the first time in many years, we have no new arrivals to declare at either junior or senior level. Fiona Smith retired last February after 31 years service marked by quiet competence & patience. Fiona trained in Wellington in New Zealand before she came to Dumfries. Her qualities were perhaps seen at their best in our Community Dental lists, where she invariably put worried parents & distressed children at their ease. We all miss her greatly and so far management has found her irreplaceable. This is fortunate in one respect, as in our limited office accommodation we're hot-desking to a degree that has become a fire hazard.

Our four-bedded HDU opened last February and has reduced the number of elective operations that would otherwise have been cancelled for want of an ITU/HDU bed, as well as improving our care of ill surgical patients. Wayne Wrathall is heading our next venture - a Critical Care Outreach Team. He's finished the diplomatic stage of "No, I will not tell you how to do your job, or take over your patients, just help you to recognise those needing extra attention sooner rather than later", and is starting the active stage of having a team on the prowl, in the surgical & orthopaedic wards in the first instance.

We expect to move into our new Maternity/Day-care Unit soon. This will mean the end of rushing to Cresswell Maternity Hospital, with benefit to everyone. The only cloud on that horizon is that it's very possible that Management & the Obstetricians will then say to us "Start an Epidural Service NOW" to which we will reply "*We* will start a Labour Ward Epidural Service when *you* give us the staff to provide a Service."

On the national front, John Rutherford finished his term as Chair of the Scottish Acute Pain Interest Group. John Carruthers is Chairman of the NCCG of the SCHMS, member of the LNC Forum Scotland, member of the Chairman's Advisory Group of the UK NCGG & CCSC & member of the SCHMS Negotiating Sub-Committee. The fact John is helping to negotiate my pay makes me sleep better at night & almost (but not quite) makes me have compassion for the civil servants on the other side of the table.

The Scottish Society is always keen to help members wishing to undertake good work abroad

Let us know if you have any plans, or would like to be considered as a candidate by the Society, if we were to be approached from abroad. Please contact your regional council member in the first instance.

2002 PROGRAMME

"Sunny Jim - you go off to Stirling wi' the youngsters. I think there will be a bit of hoochin' & jiggin' . . .

"MacPhail - reacquaint yourself wi the Science up at Inverness. You'll no doubt get a whisky or three . . .

"Dougie & I will be off to Peebles for the Meeting, the Golf, the Fishing, the Drams, the Bouncy Castle & those two Offy Bonny Lasses we met last year . . .

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