The Annals of The Scottish Society of Anaesthetists 2010

The missing link?

2010 Programme of events

April 23rd Trainees Meeting at Peebles Hydro
April 23rd-25th Annual Spring Meeting at Peebles
June 11th Annual Golf Outing at Lanark Golf Club
November 18th and 19th Annual Scientific Meeting, Royal College of Physicians, Edinburgh

For details of contacts, meetings, events etc....

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The Scottish Society of Anaesthetists

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Editorial

I sit writing this in the grip of the worst Scottish winter in 20 years or 50 or whatever. The analogy with the likely nuclear winter of public spending cuts which will follow the General Election is irresistible. Those of us old enough to remember previous spending freezes are familiar with the (less than pleasant) atmosphere they engendered but reassured by memories of the return of normal activity and spending. It is certain, therefore, that the freeze is part of a familiar cycle but it may be longer and deeper than in the past. The remarks of David James, clinical director of the anaesthetic department, St Thomas' Hospital, London in the RCA Bulletin in January are a concern in this regard. His comment that "we will be asked to do more, with higher quality, and with lower costs" gives an indication of the pressures that will be applied. The concerns expressed by our President John May on the next two pages will be increasingly relevant.

On a brighter note, I have been able to discuss professional once in a lifetime events in previous editorials and this year is no different. The winner this year is the indirect laryngoscope. If finances allowed I would use one for every intubation. My own opinion is that they are the missing link in airway management and represent an advance in anaesthetic practice comparable to the introduction of propofol or the laryngeal mask airway. I appreciate this advance therefore becomes a three times in a lifetime event (or once in a third of a lifetime) – but you get the point. John Henderson, former President of the Difficult Airway Society, discusses indirect laryngoscopes more fully later in the Annals and I entirely agree with his remarks.

Observant members will notice the expansion of the Annals to 68 pages. Most of the abstracts submitted to the Trainees' Meeting at Peebles are included as are the winning contributions from the research competitions of the three main regional societies. Transcripts of the Keynote Lecture from the Peebles meeting and Gillies Lecture from the Winter Meeting are also here. The Society is fortunate that it has access to the preliminary scientific endeavours of its younger members as well as the formed views of senior members with a deep understanding in specific areas. The Annals is a stupendous vehicle for both types of material – and some lighter material also – and will continue on its current course until an alternative is suggested.

My thanks to Aidan O'Donnell for some of the Peebles photographs. I hope things are well with you.

President's Message

CONSTITUTION

(2) The objects of the Society will be to further the study of the science and practice of Anaesthetics, and the proper teaching thereof, ***and to conserve and advance the interests of anaesthetists.***

As I prepare this newsletter form AW5 has arrived in the post. "Application for award of pension and lump sum on age retirement" stares out of the page in bold type, and I find I have mixed emotions. I won't have to trouble myself with revalidation, recertification and next year's job planning process, however all my career I have thoroughly enjoyed "passing gas" and will miss contact with patients and colleagues.

Like many others, I suspect, I have found medical politics tiresome. As the years pass the number of reorganisations and new initiatives mount up. What is the point of getting embroiled? It will all get changed again in the next reorganisation anyway! I felt that the best way I could serve patients and my specialty was to concentrate on the practice of anaesthesia itself. I even found the increasing amount of teaching and doubled up lists irksome. Too late I realise how shortsighted I have been. If every anaesthetist shared my attitudes where would our specialty be now?

Recently, whilst reading about John Gillies' life, I was struck by how hard he and his contemporaries had to fight to ensure consultant status for anaesthetists at the inception of the NHS. Gillies recognised that to advance, a specialty must be strong both on the scientific side and on the political. Science needs money, and only from a strong political position can finance be obtained.

Perhaps impending retirement has made me overly pessimistic. At a time when big changes are taking place in healthcare as a result of all sorts of pressures (ranging from the European Working Regulations, increasing management control, political targets, and revalidation to name but a few), perhaps anaesthesia finds itself at a crossroads. Consultants are being appointed with 9:1 DCC:SPA contracts, and in our specialty there is increasing pressure for anaesthetists to take on resident first on call duties formerly performed by registrars. There is not the same need for a consultant physician to be "immediately available", and however tight the job planning process it is easier for some specialties to be flexible with ward round/teaching sessions and make time for attending meetings than it is for the anaesthetist with 8 or 9 clearly identifiable fixed theatre sessions (which is what a 9:1 contract plus 2EPAs will look like)! Maintaining throughput in theatres is such a priority these days that departmental heads are under huge pressure to restrict other activity and ensure that when it does take place "time owed" is paid back. Perhaps now is the time to fight back and ensure a proper professional environment for consultants in our specialty. I also think that we should look after our Associate Specialist and Staff Grade colleagues better than we may have done in the past, and present a united front. If not, I suspect that it will be difficult for anaesthesia to maintain a

comparable professional status if there isn't the time to serve on influential committees, undertake research, teaching duties and so on. Recruitment will suffer and all that John Gillies and his colleagues fought so hard to achieve may be lost.

A common theme in past Newsletters has been as to whether the Society should remain divorced from medico political activity. I was one who thought that it should, but now I have my doubts. At the next AGM I understand that time is to be made on the agenda not just to receive reports from the College Board and the AAGBI Scottish Standing Committee, but also for discussion and debate. I think that this is a fine and timely move indeed. Perhaps we need someone well qualified to chair this session?

Now for other news. Elsewhere within these annals will be found full reports on the activities of the Society throughout the year, so I will be fairly brief. Firstly I must say what an (undeserved) privilege it has been to serve as your President during this time! The Trainees' meeting on Friday 17th April was superbly run, and congratulations are due to Jenny Edwards and Sarah Hivey for organising such an excellent day. With such speakers as Crispin Best, Euan Dickson and Michael Murray my biggest regret was missing out on half of the talks whilst judging the poster competition. These were of a bewilderingly high standard, and the winner was Paul McConnell from the Southern General with a poster on "Do not attempt resuscitation" orders. I am sure the format of holding this meeting the day before the AGM will continue. This meeting too was most successful with entertaining and informative lectures from our guest speakers Aidan O'Donnell and Alistair McGowan. The Donald Campbell Memorial Quaich prize for the best Trainees presentation was won by Hanlie du Plessis with a presentation on interscalene blocks. For me, the only downside of the day was that I have clearly been replaced as the Society's Piper by Jane, Willie MacRae's granddaughter.

The Winter meeting of the Society was held this year in Inverness. The two day format was excused by our distance from civilisation, and seemed to go down well. Certainly the dinner at the Kingsmills Hotel on Thursday evening was very well attended. We were fortunate in the quality of our speakers, with Ronnie Glavin delivering a fine Gillies Memorial lecture on the Friday afternoon. Professor Chris Dodds rounded off the day with the latest news on revalidation and recertification. It was reassuring to hear that he thought that, once organised, we should be spending only 4 hours a year administration on this activity! Our grateful thanks are due to my co organisers Ian Johnston, Ross Clarke, and Ken Barker who shouldered most of the work.

It was particularly pleasing that we have been asked to support a forthcoming meeting of the Anaesthetic Section of the Royal Society of Medicine to be held in Edinburgh on 5th February 2010. This meeting is being organised by Crawford Reid, and it has been decided that Jim Dougall our Vice President will represent the Society and chair one of the sessions.

To finish. As in past years, the Society is incredibly fortunate in its office bearers, who seem to me to perform so effortlessly. I'm sure that it is an illusion! We are most indebted to Liz McGrady, Colin Runcie, and Kerry Litchfield for all the work involved throughout the year. I must also acknowledge all the support and sound advice from our Past President John McClure, and Vice President Jim Dougall.

Jim, I wish you every success for 2010.

Presidential Address

MMC and a Heilan' Cow

John May 2009

As I'm going to tell you about my background and anaesthetic practice, I decided to include my forebears. After all we're a product of those that went before, and this gives me an opportunity to touch upon two of Scotland's great industries, fishing and weaving.

Mother and father were both doctors, qualifying from Aberdeen in 1947. Father came from Fraserburgh but my grandparents came from the fishing villages of Inverallochy and Cairnbulg just 3 miles to the south. In the late 19th century these were close, tightly knit communities and certain surnames were very common. Names like Buchan, Duthie, Stephen, Tait, Ritchie, and May.

There were several different families of May in these villages, and my grandmother's maiden name was also May. She came from a family of Mays known as the "Boras".

My great grandfather, John Lawrence May, was better known as "Jocky Bora". John married a Jane Robertson from Portessie. Jeanie Robertson was said to have been very beautiful, so much so that she was known as "The Star of Buckie", or "Jeanie Starry". Jeanie died from a cerebral haemorrhage aged 57yrs. She and John had 14 children, and my great grandfather named his first steam drifter the "Jeanie Robertson" after her.

My great grandfather had always said that steam drifters would be the ruination of the fishing, and in a way he was proved right when looking at the state of fish stocks now!

Like many of these small steam drifters the Jeanie Robertson was requisitioned by the admiralty in

John May

Jeanie Robertson Boat

A Zulu sail boat

times of war. The Daisy 2, a sister boat, was built in the same yard for one of my great grandfather's brothers William May. When the Second World War came along she was a tender to HMS Royal Oak when the battleship was sunk by a German U-boat in October 1939. The war was only 6 weeks old, and the Royal Oak took just 15 minutes to sink with 833 men losing their lives. The Daisy 2 saved 386 sailors from icy waters in total darkness, and a plaque was put up in her cabin in recognition of the event!

There were two main types of sail boat at that time, the Fifie and the Zulu. Fifies were thought safer when sailing before a heavy following sea.

The Zulu was a very fast boat with a vertical stem like the Fifie but a stern which projected as much as 24 feet from the keel. The short keel made her easier to handle in waters of a limited area such as entering or leaving harbour. A Zulu could outpace a steam drifter and was capable of 11 knots! The Fifie's stern only projected a couple of feet which gave it more strength at the back, but at the expense of manoeuvrability.

The Royal Oak

The boats got bigger throughout the 19th century, and towards the end the main mast was 60 feet and the mizzen 50 feet above deck. These boats would have carried a "fleet" of up to 70 drift nets giving an area of 42,000 square yards which is just less than 9 acres! Once shot, the nets would have extended 2 miles from the boat. A boat cost around £800 and they were capable of carrying 300 cran of herring. A cran is 37.5 imperial gallons or about a thousand fish and in those days a cran would have fetched about £1 at auction. The steam drifters were far more expensive to buy and run. They cost £3000-£4000 a boat, and although they didn't need to steam whilst drifting, they still used 15 tons of coal a week, and of course the engine and fuel took up valuable storage space in the hold. As the fishing grounds moved further out, up to 60 miles from land, the boats got bigger and from 1901 all new sail boats added to the fleet were over 60 feet in keel length.

Once the boats got this big they were fitted with steam capstans to help with the handling of the nets and lowering and raising the mast and sails, which weighed 2 and a half tons. When the boat was fishing the main mast would be lowered routinely. The total sail area was over 550 square

A Fifie sailboat

yards and the slightest wind gave steerageway. So great was the power generated in a stiff breeze, these boats had to carry 30 tons of stone for ballast!

The villages that the fisher folk lived in were built with parallel roads, parallel on to the sea, and the houses were of two room "but and ben" style set gable end onto the sea to withstand winter gales. Fisher people had a language, dress, outlook, habits, and customs peculiar to themselves. Being used to helping one another, this culture of mutual reliance in the face of hardship and danger created a fiercely independent community. When disaster occurred, whether financial or in terms of loss of life, it affected the whole village but as most families were related widows were never left entirely destitute.

The fisher men wore kersey wool trousers and a gangee (or Guernsey) which was a pullover knitted in navy or black wool with a high neck. They also had a jumper which was barked like the nets to stop rotting. They had leather sea boots and an oilskin coat plus a cap or sou'wester when at sea.

Although there was only one fishing season off Fraserburgh, during 2 months of the year, there were in fact a succession of seasons lasting 8 months in the North Sea because of migration and different stocks of fish. The season in Shetland started in May and as the year progressed the fishing went south until the last season of the year, from October to December, was off the coast of East Anglia. Most of the fish landed was from Scottish boats, and the processing of the fish was done by Scots fisher lassies who followed these migrations.

The women and girls worked in teams of three, 2 gutters and one packer. The herring were gutted at the box "farlinns" and carried across to a big tub where the packers worked. The women worked very quickly, and it was fairly standard to be able to gut 60 herring a minute and fill 3 barrels an hour.

They poured a scoop of salt onto the fish, turned them, and then filled the barrel with salted fish, 3 in a row tight. Once the barrel was filled, the cooper came and put the top on the barrel which would be laid on its side in the herring yard for 10 days. The salt would go into a pickle, and this was drained resulting in the barrel contents going down a good few inches, so the women had to retop. They then put some pickle back in the bung hole.

When the barrel was full the 3 girls would carry the barrel to the cooper who would put

Fisher girls (above and left).

on the date and then the fish size on the bottom of the barrel. The barrels were then carted down to the pier and loaded into ships which went over to the Baltic countries, Germany and Russia.

At the turn of the century Scotland was producing over 2 million barrels of cured herring a year, and there were about 550 coopers and 140 apprentices working in Fraserburgh. Then in 1902 and 1903 two barrel factories opened and it wasn't long before the whole process was mechanised. Fraserburgh was a great centre for barrel making and produced 2 and a half million barrels yearly, shipping them off to many of the other centres but especially Shetland, Yarmouth, and Lowestoft. Once barrel making was entirely mechanised the workforce fell dramatically, and by the 1950s there were just 14 coopers, no apprentices.

My grandfather was to have followed his father into the herring fishing but he wasn't a good sailor and suffered a lot with sea sickness. The fishermen were making good money at the time and so he was free to be apprenticed as an engineer to a small business in Fraserburgh which he was eventually to buy up with a partner called Bruce.

The Hamiltons

Mother's family came from Dunfermline and they had worked in the linen trade for generations. My great grandfather, James Hamilton, started work as a boy sweeping up on the mill floor but ended up mill manager.

The earliest weaving in Scotland was based mainly on making linen from flax on cottage handlooms. The industry was supported by Act of Parliament in 1686 which stipulated that everyone had to be buried in a linen winding sheet which had been made from materials grown, spun, and woven in Scotland.

By the middle of the 18th century linen had become one of Scotland's most important exports. The linen industry was based mainly in Fife and Forfar, and in the mid 1800s there were an estimated 26,000 handlooms in use throughout the area, with Dunfermline having about 3000 looms mainly devoted to what was known as "harness" work such as Damask table cloths and napkins.

Spinning machines had been invented in the late 1700s and by the mid 1800s factories began to spring up in Dunfermline with the building of 10 Damask mills. Ultimately 6000 factory workers were employed.

The process of making linen from flax was complex and involved several processes. After harvesting the flax was rippled or combed to remove the seed heads, and the stems tied in stooks. The flax was then retted in tanks or pools. This was a

process of bacterial decomposition to dissolve the pectin binding the fibres together in the plant stems and allowed the separation of the woody portion by scotching. Initially this would have been done by beating the stems with batons, but later in the mills the plants were crushed in rollers. Then came hackling. When done by hand the hackler or heckler took a handful of rough flax, a strick, and dashed it against a ruffer which was a tin plated board studded with steel spikes about 7" long. The strick was drawn through the ruffer several times until the fibres were combed out and smooth. This process was repeated over and over again with ruffers of increasing fineness and closeness of teeth. The flax was then cut into lengths. These now smooth, glossy, and clean stricks were taken to the "line sorters" who made up bundles of similar quality stricks for carding, and finally spinning.

My grandfather, also James Hamilton, was born in 1890 and destined for the factory. His job was to set up the machine patterns for the damask weaves. The word Damask comes from Damascus where this type of weaving was supposed to have originated in relation to fine silk cloth. It was an expensive time consuming process whereby the pattern is a result of the weaving, picking up the warp threads from the weft.

The pattern is flat and reversible, and Dunfermline became famous for its production. From 1900 damask linen was made with the direction of a series of punch cards, which could be used to alter the position of the warp threads in the fabric. There could be hundreds of cards in a complex pattern, and my grandfather's job was to set these in the looms.

Also the son of a weaver, Andrew Carnegie had little education himself but as we know spent large portions of his fortune on such works as schools and libraries. Carnegie wrote "Education gives a

James Hamilton

Andrew Carnegie

man, who really absorbs it, higher tastes and aims than just the acquisition of wealth, and a world to enjoy, into which the mere millionaire cannot enter". Andrew Carnegie was to have a huge influence on my grandfather's life. He gifted money towards the building of the Lauder technical college in 1899 in Dunfermline, his home town. The college was free, and although the Hamiltons all left school at 14 years of age, after work they, and many of the young people in Dunfermline, would go to classes in the evenings. My grandfather studied art and design because he enjoyed sketching.

This was to completely alter his life because although the war came along to interrupt his studies, he had been able to take advantage of the links that the Lauder College had with Herriot Watt University and the Edinburgh School of Art, whereby if you had studied at the Lauder for 4 years you were entitled to apply for a grant to study full time in Edinburgh. And so it was that my grandfather went to Edinburgh School of Art, and after a short time at Dundee Art School ended up Head of Design at Grey's School of Art in Aberdeen. He could so easily have remained in the factory for the rest of his life.

What about myself?
I was born at the Simpson's Memorial in 1949, and like our previous President, I too was a Caesarean section birth! I have often wondered what my mother's general anaesthetic was like, but it would very likely have been administered by face mask. Curtis Mendelson had published his report on aspiration of gastric contents in pregnant patients in 1946, and anaesthetists were aware of the risks but it was felt that the airway could be managed adequately by any competent anaesthetist even if the mother was vomiting. It was not until the late 1950s that intubation became more common. My own pathway into medicine let alone anaesthesia was pure chance.

I qualified from Aberdeen University in 1969 and ended up working in Blood Transfusion, testing blood for Australia Antigen. This was hazardous but pretty mundane work, and so one day whilst walking past the Royal Free Medical School I wandered in and asked how one went about studying medicine. This was during the summer recess and the school was deserted. The porter I spoke to thought that "Professor Lawson might be in his office". The "Prof" was a biochemist and responsible for the male preclinical students, but more importantly he was a Scot, and agreeing to see me gave me an impromptu interview. Following a last minute application through the university clearing system I found myself with a place at medical school with only 6 weeks to the start of term.

After house jobs in London I entered a GP training scheme in Wales. With my father keen for me to start in his practice, I was coming to the end of the rotation when I met a GP anaesthetist. Watching him anaesthetise one of his own patients I was clearly impressed so my next move was to apply for an SHO post in Anaesthetics at the Royal Hallamshire in Sheffield. My plan was to get the D.A. before entering father's general practice which was only 14 miles away. This was 1979 and I was already 30yrs old. A year later, with Part 1 under my belt, I went to Rotherham General for 6 months to gain practical experience. Then came a major turning point in my career! A registrar post was advertised in Edinburgh.

The Edinburgh department was a special place in those days under Professor Robertson and Bruce Scott. I started in January 1981 and was given no option as to when I would sit the Final Fellowship, which was "as soon as you are eligible". So there I was with my Fellowship in January 1982, and sliding into a career in anaesthetics. Once again good fortune played its part. In those days in Edinburgh it was possible to gain a year towards higher professional training by virtue of a post fellowship registrar rotation. Added to this was 3 months Acting Senior Registrar at the Eastern General, and I moved to a Senior Registrar job on the Nottingham rotation with only 20 months before being eligible for my "ticket". I fitted in well during my 6 month Lincoln block so when a post came up I applied and was appointed Consultant in February 1985, little over 5 years after starting anaesthetic training.

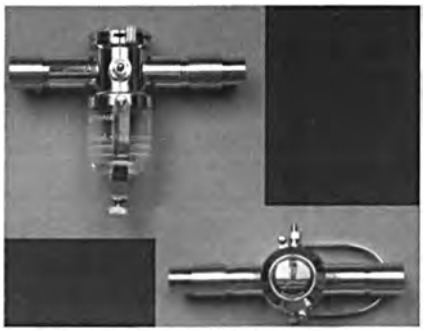
And all this resulted from being in the right place at the right time on so many occasions. After 8 years in Lincoln, although very happy there, a post came up in Inverness, and the rest is history.

MMC. "Modernising medical careers" or "May's medical career"?

In both of my grandfathers' lives pure chance dictated how their careers were to turn out. A boom in the fishing at the turn of the 19th century plus a tendency to sea sickness enabled Grandpa May to leave fishing and become a master engineer. Coming from Dunfermline coupled with Andrew Carnegie's gift meant that Grandpa Hamilton didn't spend the rest of his life working in a linen factory. My own entry into medicine was entirely unplanned and very much a case of being in the right place at the right time. Being born in Edinburgh was the only reason I applied for a post there, and that job entirely altered my future chances of a career in anaesthesia in a way no other job could have done.

I will resist being too critical of the whole "MMC" process. There have been improvements since it started. No doubt the old "lost tribe" SHO system had its drawbacks, but I still think the profession has lost something by not allowing young doctors the freedom that we had to try different specialties before settling down. Would I have succeeded if I'd had to compete in the annual job application round that our trainees have today? No, because serendipity played such a large part in the way I obtained my posts, and whilst my training seems very short by today's standards it surely benefited by being obtained in three different teaching centres, as well as having prior experience in orthopaedics, A/E, psychiatry, and general practice. Also, there was all the unsupervised service-orientated anaesthetic practice which doesn't seem to count quite the same towards training these days, and there was more time available to get experience; no EWTD!

And the Highland Cow? Whatever else trainees think of me, I hope they come away from a list thinking "well, that silly old so and so still thinks anaesthetics is fun!" I hope that DOPs, MSFs, CBDs, Mini-Cex, annual assessments of competency progression, appraisal, revalidation, recertification, and all the various clinical governance issues our younger colleagues are faced with don't take the fun element out of the job. I can't suggest these changes aren't an advance in patient care and safety, but perhaps we felt less pressured in our day. Having said this, I am impressed by the high quality and enthusiasm of our young doctors today. I suppose they've known nothing else! I tell trainees that giving anaesthesia can be a little like driving a car. If you drive recklessly and without due care some one is going to get hurt. On the other hand consider; round every bend there could be a highland cow lying in the middle of the road. Unlikely, but there could be! But if you drove as if this were the case, you might end up having the very accident you are trying to avoid. So I tell the more obsessive trainee that once they have some experience under their belt they should try not to be so intense, not to be so protocol or recipe driven, but try to relax and enjoy the practice of anaesthesia. I know I certainly have!



A Goldman vaporiser

The Edinburgh department of anaesthetics circa 1981.

Travelling Fellowships

The Society would like to encourage members to teach or learn abroad. Grants of up to £1000 (to a limit of £5000 in any one year) are available. The trip may be primarily as aid to less developed parts of the world or possibly to learn a new technique somewhere in the developed world – provided you are not in paid work there. Apply to Dr McGrady, the Hon. Secretary.

Gillies Lecture

I wish I hadn't done that

Ronnie Glavin 2009

I would like to thank the Society for inviting me to deliver the Gillies Memorial Lecture. I would also like to echo Tony Wildsmith's description of the simultaneous mixture of honour and trepidation brought about by reviewing the list of illustrious predecessors.

My chosen title refers to an area of considerable interest to me in my twin roles of practicing clinical anaesthetist and anaesthetist as educator, the decision-making processes of the anaesthetist. More specifically, how do we learn how to make effective decisions, why do sometimes get it wrong and what can we do to provide countermeasures against making inappropriate decisions? I have been working for almost ten years with Professor Rhona Flin and her colleagues at the Industrial Psychology Research Centre at the University of Aberdeen exploring this and related areas and I would like to publicly acknowledge their contribution to my understanding of this area; without their cooperation and support I would not have ventured so far into such fascinating territory. However, what follows is a very personal account and any errors or mistakes are entirely of my doing.

What follows is not a transcript of the lecture but a restating of the content, fashioned in a way more appropriate for the written word.

How do we learn to make professional decisions?

The big decisions relate to solving problems – what am I going to do for this patient? How I am going to manage this patient's perioperative course? So I would like to begin with a classification of problems. I first came across this model during a medical education conference and wish to give credit to its author, Ron Epstein a professor of family medicine in Rochester, NY. He classifies problem into three categories:

- Simple problems
- Complicated problems &
- Complex problems

An example of a simple problem would be 'baking a cake'. What makes this simple is that once I have arrived at a solution then I can apply that same solution every time the problem presents. So, once I have mastered baking a cake then I can repeat that process every time I am asked to bake a cake.

An example of a complicated problem could be 'propel a human being to the moon and then back to earth'. At first glance this appears to be different from baking a cake but that difference is merely one of scale. I write merely because as with the simple problem once the solution has been mastered it can be applied to the problem every time the problem presents. Simple and complicated become ends of a spectrum, a spectrum linked by this notion of a solution that will always work for that problem. That is not to say that there is only one solution – there are many possible solutions. But irrespective of the actual solution chosen or selected each will address the problem.

Complex problems are different. An example of a complex problem could be 'toilet training a child'. As every parent knows each child differs to an extent. What works for one child may have very messy results when applied to another child. We can summarise this by saying that a complex problem is one for which a solution that worked previ-

ously may not work for future presentations of that problem. When presented with a complex problem we may have to choose from a range of solutions; a range in which some way work and some may not. We may have to invent a new solution because none of the existing solutions provide a satisfactory solution. How do we learn the management of complex problems? We need to develop judgement that will allow us to select or invent a solution appropriate to that problem. As ever the Greeks had a word for it. Specifically, Aristotle used the term phronesis (φρονήσις), which we translate as 'practical wisdom'. We are probably more comfortable using the phrase 'clinical judgement'.

One of my concerns in present educational fads is the misapplication of competency-based training (CBT). CBT is appropriate for learning how to deal with problems on the simple-complicated spectrum. Once we have mastered a solution for a particular problem then we are competent to deal with that problem. There are problems that arise for which this type of approach is suitable. If we want to learn how to programme a new PCA syringe pump then once we have mastered the sequence we can do so with impunity. This is not the same thing as providing effective postoperative pain relief – a complex problem; but it may be a necessary step to provision of effective pain relief. CBT breaks down tasks into problems that are manageable in this way. The management of complex problems requires judgement and, I contend, judgement is a much higher cognitive goal than problem identification and solution matching. Any agency that is under the misapprehension that perioperative care of patients can be broken down into simple problems does not understand or appreciate either the complexity of our task or the level of judgement that is required. The intrinsic nature of anaesthetic practice in the UK is very different qualitatively from 'Kwik-Fit Fitting' or 'Hamburger Academy'. But that doesn't answer the question I posed several rants ago – How do we acquire clinical judgement? Judgement is not just about having knowledge and skills and values, it is also about how we use those attributes. Models that look at the journey from novice to expert (1,2) comment on the differences in the way in which novices and experts (and the stages in between) make use of their knowledge and skills. In other words, the model is not an acquisitive one; a model in which one can stitch so many competencies onto one's corporate uniform like so many boy cub or brownie badges. No, the model is a transformative one; one in which the view of the professional world changes and the means to navigate the professional world alter. Novices cannot do things that experts can. Novices cannot use intuition in their professional area; novices are much more dependent on rules than experts. Experts use rules of thumb or heuristics – "normally I would go for plan A but in these circumstances because of conditions X, Y and Z I shall abandon plan A and use plan B instead". Having established the need for transformation then what is the engine that drives the change. That engine is experience, a term that needs further clarification.

In this context we are thinking about the types of experience that will be most effective in bringing about the transformation, because not all experiences are of equal educational benefit. So what features characterise useful experience as opposed to experience that is not as helpful. Jensen (3) listed some features that had a positive influence:
Number
Variety
Relevance
Meaningfulness
Recent

Another source of input comes from psychologists who have studied expertise in fields as diverse as chess, music and athletics. K Anders Ericsson (4,5), who has many publications in this area, describes the winning formula as 10,000 hours of deliberate practice. Deliberate practice is in turn characterised by three features:

1. The learner undertakes a challenge. Ericsson found that aspiring musicians who went onto expertise did not practice any longer than their colleagues but gave themselves goals during practice that were more difficult to achieve. In the case of chess players this means taking on better opponents.
2. The learner analyses the performance and identifies those areas that require further work.
3. The learner then focuses on those areas by setting up challenges

The implications for anaesthetic training are obvious; we need to present our learners with challenges (while ensuring patient safety), we need to give detailed feedback and we need to help provide them with opportunities to address their individual learning needs. As a specialty, there are areas we need to further refine and develop. The 2009 PMETB Trainer Survey (6) revealed that only 44% of responding anaesthetists felt comfortable / had received training in delivery of feedback. I do not want to appear to hark back to the golden age, because I don't believe that there ever was a golden age; however, when I reflect upon my own training I think that there was a lot more informal feedback – not from consultants but from fellow trainees. There appeared to be more opportunities where trainees could discuss the horror stories resulting from some cases managed under extended supervision and this would be followed by a tapping into the collective wisdom and experience of those present. The reduction in collegiality brought about by consecutive changes affecting postgraduate training has an impact in other ways, a topic to which I shall return.

The ability to deliver feedback requires that the giver of feedback has a vocabulary or terminology that can address the important areas. I think that most anaesthetists can deliver adequately on knowledge and practical skills but as we become more aware of the importance of other areas such as non-technical skills and the value set that contributes to professional practice then real challenges to provision of effective feedback arise. My hypothesis is that most anaesthetists acquired their non-technical skills and value systems without being aware of what they were acquiring or what they already possessed. This makes it difficult to comment on a trainee's performance. Let me take a non-medical example. If I were to ask two cinephiles why they preferred film A to film B then they would talk about such components as storyline, plot, context, theme, editing, character development, dialogue, visuals effects ranging from mise-en-scene to the quality of the colour in the film (bleached vs unbleached, for example), the composition and duration of shots and so on. Many film goers would reach the same conclusion as our hypothetical film buffs but may be less able to articulate why they in turn preferred film A to film B. We could apply these arguments to many features of life – literature, wine drinking, visual arts, music etc. We expect professional critics to be able to marshal such vocabulary when discussing the relevant item under review. We, in turn should be able to critique not only the performance of our trainees but also our own performance. The use of workplace based assessment tools is but a small step on a much longer journey.

Recent developments resulting from work using functional MRI scans have also shed light on this. This is described more fully in The Decisive Moment by Jonah Lehrer7 and I shall limit myself to a brief summary. Dopaminergic neurones linking with the nucleus accumbens (the so called 'pleasure centre' of the brain) fire when expected events turn out as predicted. This provides some explanation for the factor that the rational part of our brain requires input from the emotional part of our brain. Our subconscious is constantly monitoring events in our internal and external environment and if all is shaping up as it should then things feel right in our brain – the impact of the pleasure centre being stimulated. This is thought to contribute to the role of intuition – we do something because it feels the right thing to do, even if we have not 'rationalised' why that is the right thing to do. Of equal importance, when we make mistakes, when things don't go as we expected (at subconscious level) then another part of the brain – the anterior cingulated gyrus – recalibrates the dopaminergic fibres innervating the nucleus accumbens. What this neurological terminology means is that we not only learn by mistakes, we have to make mistakes to learn. Effective intuition comes from a complex interaction between these different neural pathways, pathways that take time to come to full effectiveness (?10,000 hours). The implication for anaesthetic training, as with any medical specialty, is that we have to allow trainees to make mistakes. How do we do that without compromising high standards of practice and patient well-being? We have to encourage our trainees to take and make decisions. We may not allow those decisions to be enacted but at least we can find out what the trainee was thinking. You may wonder if this is a plug for increased use of simulation and in a way it is but not only the full scale type of simulation pioneered at

Stirling; there are other techniques and strategies that are more appropriate at departmental level but that is a topic for another lecture.

I would like to bring this section to a conclusion by reviewing decision-making strategies. Flin et al (8) describe four main strategies:

- Creative
- Analytical
- Rule Based
- Naturalistic Decision Making (including Recognition Primed Decision Making)

Creative, as a term, is self explanatory. We invent a solution to a problem that we have not encountered before. The pioneers of our specialty invented universally applied solutions (the range of laryngeal mask airway type devices, as a more recent example) but all of us are called upon to meet the needs of patients and our surgical colleagues as yet another challenge is thrown our way.

Analytical decision making is a strategy we use regularly in our personal lives as well as our professional lives. When we think about buying a new car we weigh a list of desirable features and then have to trade these off against each other – how much are we prepared to pay? What features are absolutely essential? What are we going to use it for? As anaesthetists we are often undergo a similar type of process when considering the perioperative care of a patient. We have time to acquire the relevant information, process the information, discuss options with patient and surgeon and then come to conclusion as to how we act. Or, at least, we think we do. As suggested by some of the previous paragraphs work by a variety of sources (7,9) suggests that although the rational part of our brain makes a significant contribution the emotional part is still exerting a major influence. Our emotional side may well have made the decision before the rational part has justified that decision. This is not to imply that we should not engage in the kind of exercise where we compare options and weigh up the relative merits, merely to state that our emotional brain has greater involvement than we might think.

Rule-based decision making is a more automatic process. If I take another non-medical analogy let us think about driving from A to B. Analytical decision making will influence the choice of route – shortest, most scenic, less busy, roadworks etc. However during that drive when we see a red traffic light we stop, when we see a speed camera we adjust our speed. Such decisions become more automatic the longer we have been doing them. In the clinical setting we have our own rules – if platelet count is low then avoid epidural anaesthesia. If the patient has reflux then intubate. Many of these rules are not so hard and fast as stopping at red lights. In the clinical setting novices are more likely to adhere rigidly to rules whereas experts are more likely to waive rules on occasions.

Naturalistic decision making refers to the kind of decision making that experts carry out in their professional area. Experts will use all of the above but will also use intuition; in the sense that they make decisions but don't realise that they are making decisions. This kind of intuitive decision making is much more likely to occur in situations where these factors are present (10):

- Ill-structured problems
- Uncertain, dynamic environments
- Shifting, ill-defined or competing goals
- Time Stress
- High Stakes
- Multiple players

Novices are not able to use this strategy and so should not be expected to put into these circumstances without support and clear rules as to when to call for support and help.

The above model of strategies therefore describes the desired end-point of training, with respect to decision-making. Although I have used the term decision-making for the purposes of this article I am also including the associated non-technical skill of situation-awareness because the two are so closely linked. Situation awareness can be described in terms of three phases (8):

1. Acquiring information
2. Processing and understanding that information
3. Making predictions based on the understanding obtained.

One can easily see how these activities are closely integrated into the process of making decisions.

It would nice to think that the story ends there – we have taught our trainees to become experts and so they make perfect decisions. Well, as we all know, no-one makes perfect decisions all of the time. Even experts can get it wrong; although experts get it right much of the time. We cannot eliminate human error but by studying the mistakes that experts make we can develop countermeasures that will help us to minimise future errors.

Pat Croskerry (11), an emergency medicine physician and psychologist, describes two main categories of errors; cognitive dispositions to respond and affective dispositions to respond.

Cognitive Dispositions to Respond

These relate to the way our brains are hard wired. We look for patterns because early recognition of patterns carried a benefit for survival. Those of our mammalian ancestors who were not quick enough at recognising predators have contributed little to our gene pool. So although a predisposition for making patterns carries survival tendencies it is not without its drawbacks. Creative and analytical decision-making strategies require time and cognitive effort. If we have very little of these then we are driven more to rule-based or to Naturalistic Decision Making strategies. Sometimes, under such stressful circumstances, our minds recategorise a situation as one for which a rule exists so that we can apply that rule. This tendency to concentrate on those aspects that fit in with the rule is known as fixation errors.

The whole area of cognitive dispositions to respond is a large one and it is not possible to do it justice in this article but as a set of principles we, as a specialty, should acknowledge their potential importance and encourage the raising of awareness of their contribution to errors. Other strategies include creating sets of rules that can be applied – we already use some of these (Airway, breathing, circulation; failed intubation algorithms, advanced life support algorithms etc.) However, to take maximum advantage of these we need to review and rehearse. We also need to think about the decisions that we have made and review whether the most appropriate strategy was used. If an analytical or creative solution is required during an emergency then someone new to the situation is more likely to have the cognitive reserve to successfully apply such a strategy. Calling for help may not be enough, although it is a good starting place. This area comes very much under the heading of work in progress.

Affective Dispositions to Respond

How we act on any occasion will be influenced by not only our cognitive abilities but also by our current mental state. For example, if a surgeon with whom we are working asks if we can manage an extra case on the elective list our response will depend on not just a list of practical factors – time, availability of nursing staff, etc but also acute or temporary factors – the mood that we are in and more chronic factors – our personality and cultural influences. Let us imagine a hypothetical anaesthetist who is by nature co-operative and thinks that the request is reasonable then the likely decision is that the anaesthetists will agree to do the extra case. If our hypothetical anaesthetist were to be in a good mood because of some good news - success in some endeavour – then that anaesthetist may be even more likely to agree to the request. If the anaesthetist were to be in a bad mood – minor car accident, children playing up at school, etc then the request is more likely to be refused. The decision has been influenced by the state of mind of the decision-maker. The state of mind of the anaesthetist may be influenced by the interaction with the patient. If we are engaging in creative or analytical decision making, that process may be affected by how we respond to the patient. We can imagine that we may not wish to spend a lot of time with a patient who is rude, aggressive and unpleasant whereas we may choose to spend more time with a patient who is pleasant and interesting. This may impact on our decision-making in a variety of ways – we may not fancy having to interact with a patient whom we find unpleasant during a surgical procedure carried out during a regional technique and so may not promote that option as enthusiastically as we may on other occasions. By restricting the time spent with the patient we may not elicit some important information that could influence our future decisions – an adverse reaction to a drug for example.

The affective domain was the term applied to that area of education that deals with predispositions to actions – attitudes and values (12). As professionals, we have a set of values that relate to our clinical work. I shall summarise these as "What is the right thing to do?" This takes us back to phronesis and clinical judgement. So our professional values can be thought of in terms of "What should an anaesthetist do when presented with a particular problem?" For some problems there will be little controversy, for others there will be a great disparity of views and opinions as to what is the right thing to do. As if that were not complicated enough there are two other sets of values that influence our actions and so our decisions. These are our own personal values and the values of the institution in which we work.

- Professional values
- Personal values
- Institutional values

Professional values have been a topic of great interest with medical educators. Stern (13) lists four main values that apply to all doctors

- Accountability – willingness to take responsibility for our actions
- Excellence – a commitment to provide high standards and help to achieve what is best for any patient
- Humanism – treating our patients in a way that respects their rights as human beings
- Altruism – putting our patients first

Kearney (14) carried out a study on the key professional attributes of anaesthetists. The list came under three main headings:-
Humanistic qualities
Personal development qualities
Meta-competencies
These overlap to an extent with Stern's list. Personal development qualities are linked with excellence. The meta-competencies are a set of qualities to which anaesthetists should be committed; they include vigilance, resourcefulness, flexibility and confidence.

Kearney's list is aspirational – it reflects the values that the participants of the study would like anaesthetists to possess. In practice, our personal values will mean that each us will possess these values to differing amounts. Larsson (15) conducted a phenomenographic study of Swedish anaesthetists and found that these individual preferences manifest themselves in four different models

- The Professional Artist
  Give anaesthesia and control patient's physiological functions
- The Good Samaritan
  Help alleviate pain and anxiety in a patient
- The Servant
  Facilitate work for others for smooth run ning of hospital
- The Co-ordinator
  Make the list run smoothly

Larsson does not claim that these are mutually exclusive but rather that for any individual anaesthetist there will be a profile where some of these are more dominant than others. His main purpose in constructing these prototypes was to help trainees reflect on how their professional values and personal values interacted. My own experience when asking trainees to discuss professionalism during the dialogue accompanying work-place based assessments is that very few can articulate a set of professional values. I also find it difficult to explore personal values when working with trainees on a very occasional basis. Yet, these are very important and if we are not aware of our own tendencies we may find ourselves making poorer decisions because of the impact of our values and attitudes.

The final set of values I have referred to are institutional values. As the term implies these are the values of the organisation. In many organisations there is a trade off between productivity and safety. In some organisations external regulators play a role in ensuring that safety standards are not continually eroded to provide greater productivity. Although we have bodies such as NHS Quality Improvement Scotland to help ensure that standards are met we as individual professionals have to demonstrate our commitment to excellence by promoting our professional standards. Organisational practices can make these difficult. We are all aware of the challenges of ensuring that our patients have the opportunity to meet and discuss their care with the anaesthetist who will be provid-

ing the immediate perioperative care. It seems inconsistent to me that anyone taking out a new life assurance policy has two weeks to think about it before that commitment is made and yet on occasions some patients have less then fifteen minutes to make key decisions about the way their elective surgery will be conducted. We as individuals, with the support of professional organisations and societies, have to continue to work hard to ensure that our professional standards are not eroded.

I have spent most of this article writing about the cognitive components of decision making but often the hard decisions are the ones where we have to put our foot down and refuse to accept a lowering of standards. We do not want to see individual patients suffer unnecessarily by delaying surgery but there are times when the hard decision has to be made for the greater good. We, the current generation of anaesthetists in the UK, have inherited a high set of professional values. John Gillies and his colleagues fought hard to ensure that we acquired conditions that would allow us to put those professional values into effect and we owe it to them to ensure that no set of organisational values will dilute our hard won professional values. There are many decisions in my life that I wish I hadn't taken but I have never regretted my choice of specialty, a specialty that has been at the forefront of advances in patient safety and organisational effectiveness. I am confident that we shall honour the memory and contribution to our specialty from John Gillies by our daily commitment to the high standards that he practiced.

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Keynote lecture

Little White Lies: a discussion of the placebo effect.

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The "placebo effect" is relevant to all doctors. Daily in our professional lives we read of placebo-controlled trials, and use them as an evidence base for our practice. On the other hand, there has been a recent increase in the number of patients seeking complementary and alternative medicine (CAM), which are proven to show no benefit compared to placebo.

The temptation might be to discard the placebo effect, as an inconvenient and uncomfortable confounding variable which gets in the way of good medicine. However, I believe that it is worth having a closer look at the placebo effect, and in this discussion I propose to describe the history of the placebo effect, and look closely at what it can and cannot do, together with some theories about how it might work. Along the way, I intend to touch on complementary and alternative medicine (CAM), and to examine the ethics of prescribing placebo.

I firmly believe in scientific principles. If there is indeed a demonstrable placebo effect, I believe it should be studied and elucidated using scientific methods we already possess.

History

The term *placebo* (Lat: I will please) came about due to a mistranslation of the Bible in about the 4th century, when St. Jerome, translating from Hebrew into Latin, rendered a particular phrase as "I will please the Lord", instead of "I will walk before the Lord" (Psalm 116). This phrase was included as a prayer over the recently deceased, which was recited by monks who would charge bereaved relatives money to carry out this service. The monks felt no grief themselves. The term "placebo" became a shorthand for a form of words which were insincere but intended to bring comfort.

By the 18th century, the term had been adopted by the medical profession, as a remedy which was "adopted to please, rather than to benefit, the patient". In 1954, the *Lancet* published an editorial entitled "The Humble Humbug", in which it described placebo as "a means of reinforcing a patient's confidences in his recovery, when the diagnosis is undoubted and no more effective treatment is possible". It went on "for some unintelligent or inadequate patients life is made easier by a bottle of medicine to comfort their ego".

By this time, placebo was looked upon by doctors as a means of fobbing off desperate patients. There was no expectation of benefit, but likewise none of harm. The patient was spared the risks of taking real medicine with side effects, and the patient felt that at least the doctor was doing something. However, the juxtaposition between deception (an inactive treatment) and consolation (given with good intentions) remained unchanged.

The turning point came with Henry Knowles Beecher (1904-1976), an American anesthesiologist (later a Harvard professor), who saw military service in field hospitals in Italy and North Africa. Sometimes the medical supplies, including morphine, would run out. On one particular occasion, Beecher was preparing to treat a young soldier with severe injuries, who was in great pain. No morphine was available. In desperation, a nurse gave the patient an intravenous injection of saline, along with some comforting words. Immediately the patient reacted as if he had been given a powerful analgesic.

Beecher was astonished. Whenever supplies ran out, he tried the technique again, and found it sometimes, but not always, had a beneficial effect. This one event was to colour Beecher's view of medicine for the rest of his life.

When he returned to the USA, Beecher began to study the placebo effect. He performed one of the first ever meta-analyses of the few (fifteen) trials which had looked at the placebo effect. He found an impressive placebo response in many conditions, and suggested that the placebo effect could sometimes exceed the response to conventional treatment. He suggested that the placebo effect could produce objective evidence of disease improvement. He claimed that a third of patients ("a fairly constant 35%") improved after placebo treatment.

Beecher argued that, to prove benefit, any new treatment must prove itself to be even better than placebo. He is therefore credited as the father of the placebo-controlled trial. However, Beecher's position was that the placebo was a powerful remedy; the opposite of our modern view that the placebo is an inert control substance.

Modern analysis of Beecher's work shows that it was deeply flawed. Of the 15 trials he quoted in his seminal paper, he misquoted figures from ten (including at least one he had co-authored). In addition, of the trials themselves, none had a control group, and many of the original authors proposed alternative explanations for observed improvements, without invoking the placebo effect. It is likely that if Beecher had quoted his figures accurately, his work would have had much less impact.

Despite this, Beecher's figure of "one third" of all patients responding to placebo (alternatively, that "one third" of all therapeutic benefit is due to the placebo effect) is widely quoted, but without any foundation.

A modern investigation

To study the placebo effect directly, it is necessary to compare it with something. The ideal trial has three arms: a treatment group, a placebo group, and a no-treatment, no placebo group. In the 1990s, two Copenhagen researchers, Asbjørn Hróbjartsson and Peter Gøtzsche, performed an enormous meta-analysis of all trials which they could find which fitted these criteria. They found 114 trials, including over 8000 patients, and encompassing a wide variety of medical conditions (e.g. asthma, obesity, hypertension, anaemia, common cold, epilepsy, hypercholesterolaemia, menopausal symptoms, schizophrenia, chronic pain, carpal tunnel syndrome). Hróbjartsson and Gøtzsche were interested in placebo as a treatment of disease, so studies involving healthy volunteers were rejected.

Their conclusions were clear. They found "little evidence in general that placebos had powerful clinical effects", and went on: "Outside the setting of clinical trials, there is no justification for the use of placebos."

Closer analysis of their findings uncovers some interesting results. In those conditions where any change could be measured by the investigator (objective results), there was no statistical difference (e.g. serum cholesterol, blood pressure, blood sugar, peak flow, etc). However, where any change needed to be reported by the patient (subjective results, e.g. pain, depression, insomnia, anxiety, marital discord), several conditions did show a response to placebo, including 27 trials looking at different kinds of pain.

The consensus of evidence is that placebo does not produce improvement in organic disease. In other words, placebo can make you *feel* better, even if it doesn't help you *get* better.

Unravelling the placebo effect

Some doctors consider the placebo effect to be an illusion. Natural history tells us that many new conditions get better without treatment (although the placebo may get the credit). In addition, the phenomenon of regression to the mean applies to chronic conditions, which often wax and wane. Patients are more likely to seek medical help (and enrol in clinical trials) when symptoms are worst, which then improve spontaneously (again, the placebo may get the credit).

For those (including me) who believe the placebo effect exists, there are three main ways to approach the phenomenon. The pharmacological approach, I believe, is unhelpful: there is no known mechanism whereby it might be considered to work. The other two approaches are the psychological (top-down) approach, and the neuroscientific (bottom-up) approach.

Psychologists point to various psychological effects, such as the expectancy effect, which is that the doctor subtly manipulates the patient to report a non-existent improvement. Hróbjartsson and Gøtzsche themselves wrote "a patient may tend to try to please the investigator and report improvement where none has occurred". As an offshoot of the expectancy effect, patients may come to actually believe they are improving as a result of the care and attention they receive. The third psychological model is that of classical conditioning (Pavlov's dogs): patients become so used to feeling better after visiting the doctor that they become conditioned to feel better even when the treatment is ineffectual.

Other important psychological factors include empowerment (the satisfaction from deliberately tackling the disease), reduced anxiety, and increased knowledge about the disease. It is clear that the placebo effect touches on many aspects of the doctor-patient relationship, not simply the handing over of a bottle of pills.

Critics (such as the author of the *Lancet* editorial above) argue that to respond to placebo must indicate gullibility or cognitive weakness: "it's all in the mind". However, response to placebo shows no correlation with "age, gender, ethnicity, educational level, intelligence, locus of control, extraversion, introversion, neuroticism or suggestibility".

Neuroscientists have two main theories. The first is that placebo works by suppressing the function of the immune system. This is supported by evidence of immune conditioning in animal models, which seems to suggest that the nervous system can induce changes in the function of the immune system. This work currently seems very far removed from the human situation.

The second theory is that placebo works by stimulating the production of endorphins, which fits with the observation that placebo is effective in the treatment of pain. This is supported by the evidence that some types of placebo analgesia (but not all) can be reversed by naloxone. In addition, work with functional MRI suggests there is some activation of the midbrain, around the periaqueductal grey matter, by placebo. Although promising, this work is still not entirely convincing.

Patient factors

There are several patient factors which seem to be important for placebo to work. It has been shown that sham acupuncture works better than placebo tablets. Branded tablets work better than plain tablets. Coloured tablets work better than white tab-

lets. "Expensive" tablets (where the patient is told the tablets are expensive) work better than "cheap" tablets. Four tablets daily work better than two tablets daily. These findings suggest that patients respond better to dramatic or elaborate remedies than simple ones. These effects are deliberately maximised by pharmaceutical companies to make their products more desirable.

The patient must believe in the treatment given. If the patient believes he or she is receiving a placebo, it has much less effect. In clinical trials, patients are explicitly told they may receive an inactive treatment, and can often guess correctly (from the therapeutic effect or the side effects) which group they belong to. This may account for an apparent reduced placebo effect in clinical trials.

The opposite of the placebo effect is called the nocebo effect: the effect that a patient may come to believe he or she is being harmed when no harm is taking place. *Nocebo* means "I will harm" and is a modern term. There is a variety of evidence which supports the existence of the nocebo effect.

Complementary Medicine

Many types of CAM are proven to be no better than placebo. The CAM industry is worth £1.6 billion in the UK, and there is an ongoing increase in the number of practitioners. Despite the ineffectual remedies offered, satisfaction with CAM remains generally high.

CAM practitioners offer plenty of time, seldom break bad news, and are usually optimistic and enthusiastic about their treatments. The treatments themselves are often pleasant, involving aromatic smells, touch, music or relaxation. The ritual or mystery element may be compelling for some patients. The patient feels like a participant in the process, rather than a victim. Finally, there may be an element of transaction involved: patients value something which is expensive. By paying for it, they cement their own perception of that value.

By contrast, orthodox doctors are often short of time, and often bring bad news, and may be pessimistic (overtly or covertly) about their remedies. Hospitalisation and treatments may be unpleasant or dehumanising, rendering the patient a helpless victim. The patient may feel powerless. Increasingly, doctors have lost our own aura of mystery.

To elucidate whether the placebo effect lies in the treatment itself, or the practitioner, Ted Kaptchuk and colleagues in Harvard performed an elegant experiment. Irritable bowel syndrome (IBS), typified by patient discomfort in the presence of normal investigations, shows many of the hallmarks of a condition which would be likely to be placebo responsive. 208 patients with irritable bowel syndrome (IBS) were randomised into three groups. Group 1 was placed only on a waiting list. Group 2 received sham acupuncture from a therapist who was instructed to remain silent. Group 3 received sham acupuncture plus "warmth, attention and confidence" from the practitioner. All groups were followed up for 3 and 6 weeks using commonly-applied symptom severity scores for IBS.

All the tests revealed similar results. Group 2 fared slightly better than Group 1, but Group 3 was substantially better than Group 2 in all categories, and all results achieved statistical significance.

Kaptchuk wrote "non-specific effects can produce statistically and clinically significant outcomes and the patient-practitioner relationship is the most robust component".

Ethics of using placebo

Critics argue that to deliberately prescribe a treatment which you know to be ineffectual is quackery. Prescribing a placebo as if it were a real treatment involves a deception, which is unethical, and is likely to result in the patient losing trust in doctors if revealed. Use of placebo might delay appropriate investigation and treatment of an underlying, potentially serious, problem. Placebo treatments may be misused as a diagnostic test, to see if pain is "real". Finally, regular "reminders of illness" may make the patient less comfortable in the long run, not more.

Defenders argue that placebo is harmless; it is effectively impossible to overdose; and there are very few side effects (but not none). If the patient

is placebo-responsive, you save them the risks of taking more powerful treatments. Placebo works extremely well for a small number of patients: do we have a duty of care to treat those patients with placebo? Placebo works better outside clinical trials. What does it matter what we use, so long as the patient feels better? Most doctors would only prescribe placebo where they had ruled out serious illness or had no useful treatment to offer.

Defenders argue that there need not be deception involved in the use of placebo. The patient could be told: "I believe this treatment will help you, even although nobody quite understands how it works," which is a statement of truth.

Placebo and the law

The GMC offers no explicit guidance about prescribing placebo. However, Good Practice in Prescribing Medicines (2006) says: "You should only prescribe drugs to meet identified needs of patients and never for your own convenience or because patients demand them", and "You can prescribe unlicensed medicines, but, if you decide to do so, you must...be satisfied that there is a sufficient evidence base and/or experience of using the medicine to demonstrate safety and efficacy." Deception violates informed consent, which is a core GMC principle.

The Medicines Act (1968) states that it is "... an offence for a person to supply a medicinal product in a container or package which is labelled or marked in such a way that it is likely to mislead as to the nature of the product or as to its uses or the effects of the medicinal products of that description". Therefore a pure placebo must by law be labelled as such. To counter this restriction, some doctors use vitamin or mineral supplements instead.

Summary remarks

There is good evidence that placebo produces no objective improvement in organic disease.

There is good evidence that placebo produces some improvement in certain subjective conditions, such as pain.

I believe that the bulk of the evidence suggests that the essence of the placebo effect lies in the relationship between the patient and a warm, caring doctor. I believe that CAM teaches us that patients can be satisfied with an ineffectual treatment provided by a caring practitioner, as much, or perhaps even more than, an orthodox treatment provided by a neutral or unsympathetic practitioner.

I believe that we can improve our effectiveness as doctors by harnessing the "placebo effect" to treatments which are proven to be beneficial.

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Regional Society Prizewinners

This section showcases the winning trainee submissions for the research competitions of Scotland's 3 main regional societies, plus a contribution from the recipient of a Society travel bursary. First is the submission which won the Nick Gordon Medal presented by the Edinburgh and East of Scotland Society of Anaesthetists.

Clinical Evaluation of the McGrath® Videolaryngoscope in Patients Undergoing ENT and Maxillo-Facial Surgery. B. C. Ulyatt. Dept Anaesthesia, St. John's Hospital, Livingston.

Airway management is a core skill in anaesthesia and several techniques and technologies have been developed in recent years. The videolaryngoscope is gaining popularity and published studies have suggested that use of these devices in normal, simulated and difficult airways is straightforward [1-7]. Benefits of the videolaryngoscope include better view at laryngoscopy [7-9] and maintenance of cervical spine alignment [10-11]. This is largely due to the fact that a view of the glottis is provided without the alignment of oral, pharyngeal and laryngeal axes [3]. In addition they may also allow improved training in tracheal intubation [12-14].

The McGrath® Videolaryngoscope (Aircraft Medical, Edinburgh, UK) is one such device, comprising an adjustable 'camera stick', a single use disposable blade and a handle housing an adjustable liquid crystal display and the single AA battery supply. (Fig 1)

The McGrath® has been shown to provide improved views at laryngoscopy in both patients with normal airways [1] and those with 'difficult airways' [2,10,15,16], although numbers are small. It is suggested that the formation of a 'hockey stick' shape in the tracheal tube using a malleable stylet is mandatory [1]. The author is unaware of any publications describing the use of McGrath® with 'non-standard' tracheal tubes or for nasal intubations, although this latter technique has been described for the Glidescope (Saturn Biomedical Inc, Burnaby, BC, Canada) [17-20]. This prospective evaluation therefore aimed to assess tracheal intubation success and ease of use of the McGrath® for both oral and nasal intubations in patients attending for ENT and maxillo-facial surgery.

Fig 1 The McGrath® Videolaryngoscope

Methods

The evaluation was discussed with the local Research and Ethics Committee who deemed that formal ethical approval and patient consent were not required as the McGrath® is a recognised piece of medical apparatus already in clinical use. It took place in St. John's Hospital in Livingston over a 4 month period between September and December 2008. Patients attending for elective and emergency ENT and maxillo-facial surgery, who would have normally undergone asleep tracheal intubation as part of their anaesthetic, were enrolled.

7 anaesthetists took part in the evaluation, all were post-fellowship registrars or consultants. Standard recommended monitoring and intravenous access were applied and induction, maintenance of anaesthesia and muscle relaxation was at the discretion of the list anaesthetist. All anaesthetists had limited experience with the McGrath® (<3 intubations) other than the author who used the scope on 5 occasions for both oral and nasal intubations prior to commencing the evaluation. All anaesthetists were given brief non-standardised training by the author in the use of the McGrath® prior to their first attempt.

Data recorded were patient age, weight, height, sex, body mass index (BMI), previous documentation of airway difficulty (including Cormack and Lehane grade of laryngoscopy [21]) and an airway assessment (Mallampati score [22], thyromental distance (TMD), dentition, jaw protrusion [23], mouth opening and neck movement).

Timings were started when the scope passed through the incisors and taken at time to best view at laryngoscopy (time to view) and time to removal of scope from the mouth (time to intubation). Other variables measured were Cormack and Lehane grade of laryngoscopy, number of attempts (defined as each insertion of the scope), difficulties encountered, complications (including de-

saturation, bleeding, trauma and equipment failure), adjuncts used and techniques used to overcome difficulties. A stylet (Satin-Slip – Mallinkrodt, Athlone, Ireland) was used as standard to pre-form the tracheal tube to the 'hockey stick' shape for oral intubations.

If tracheal intubation with the McGrath® was unsuccessful within two attempts, or if SpO2 was < 92% before tracheal intubation was completed, an alternative technique to achieve intubation was used. Following the attempt anaesthetists were asked to describe the episode as 'easy', 'slightly difficult',' moderately difficult', 'very difficult' or 'impossible'.

Results

68 patients were enrolled, 41 undergoing ENT and 27 maxillo-facial surgery. Table 1 shows patient characteristics and variables assessed preoperatively. 15 patients had documentation of previous Cormack and Lehane grades of view at laryngoscopy of which 5 were grade 3. An additional 3 patients had documentation of difficult intubation. Overall, 27 patients (40%) were either known to be difficult to intubate or were predicted as being difficult – defined as having at least 2 risk factors known to be associated with difficult intubation: BMI greater than 35, Mallampati grade 3 or 4, mouth opening less than 3cm, TMD less than 6.5cm, jaw protrusion less than 0cm or awkward dentition [21-28].

Table 1 Patient characteristics and pre-operative airway assessment

		Mean ± SD	[Range]
Age/years		41 ± 19.3	[7-87]
Height/m		1.69 ± 0.12	[1.21-1.93]
Weight/kg		76.8 ± 20.7	[24-155]
BMI/kg/m^2		26.7 ± 6.4	[16.4-57.6]
Sex Male/Female		34 Male	34 Female
Mallampati score	1	29 patients	43%
	2	18	26%
	3	19	28%
	4	2	3%
Mouth opening <3cm		15	22%
TMD <6.5cm		3	4%
Limited neck flexion		7	10%
Jaw protrusion	>0cm	50	74%
	0cm	12	18%
	<0cm	6	9%
Awkward dentition		8	12%
Other prediction of difficulty		21	31%
Previous Cormack and Lehane grade			
	1	7	10%
	2	3	4%
	3	5	7%
	4	0	0%
Documentation of previous difficulty		3	4%

41 patients were intubated via the oral route and 27 nasally (Table 2). An intubating stylet was used for 37 out of 41 (90%) oral intubations and no adjuncts were used for the nasal intubations.

Tracheal intubation was achieved in 66 (97%) patients. The larynx was visualised in all cases with 64 (94%) Cormack and Lehane grade 1 views and 4 (6%) grade 2 views. 58 (85%) intubations were at the first attempt and 52 (76%) intubations were described as easy. 2 patients (3%) were not able to be intubated using the McGrath® videolaryngoscope. Neither desaturated nor came to harm. Median time to view of the vocal cords was 6 seconds (IQR 4.8-8, range 3-50) and median time for intubation was 28 (IQR 21-42, range 13-180). (Fig 2). 2 patients had minor complications of self limiting nasal bleeding and laryngeal trauma leading to a few streaks of blood found at extubation.

Discussion

This evaluation of the McGrath® videolaryngoscope in ENT and maxillo-facial patients has a similar intubation success rate to the general surgical population as demonstrated in previous studies of the McGrath® [1], Glidescope® [29] and Macintosh [30] laryngoscopes. Median times to view (6 seconds) and intubation (28 seconds) were again similar to published studies in the 'normal' surgical population for the McGrath® (6.3 and 24.7 seconds [1]), Glidescope® (mean time to intubation 46 seconds) and Macintosh (mean time to intubation 30 seconds) [30].

A large number of patients presenting for ENT and maxillo-facial operations, by definition, have a degree of upper airway abnormality, although this may not necessarily result in difficult intubation. Our study population however had a greater proportion of predicted difficult intubations as compared with the initial McGrath® and Glidescope® evaluations. In addition 9 patients had laryngeal or upper airway tumours that hindered the intubation attempts. Of the 5 patients with documented grade 3 views at laryngoscopy using a Macintosh, all had grade 1 views with the McGrath®. 3 of these intubations were described as 'easy' and 2 'slightly difficult.'

2 patients were unable to be intubated using the McGrath® within the confines of the study. One had a previous cervical spine fracture and surgery with very limited neck movement and jaw protrusion and the other had previous surgery to a subglottic tumour and had new vocal cord lesions, in addition to limited jaw protrusion. Both had a Cormack and Lehane grade 2 view within 7 seconds but the difficulty was with passing the tracheal tubes through the cords (7.5 RAE and 6 MLT respectively). Both were intubated with difficulty using a standard size 4 Macintosh laryngoscope

Table 2 Tracheal tube type and ease of intubation			
Intubation route	Oral	41	60%
	Nasal	27	40%
Tracheal tube	RAE	26	38%
	MLT	13	19%
	North Nasal	27	40%
	North Oral	1	1%
	LMA Fastrach ETT	1	1%
Adjuncts used	None	31	46%
	Stylet / hockey stick	37	54%
Cormack and Lehane grade			
	1	64	94%
	2	4	6%
	3	0	0%
	4	0	0%
Intubation attempts	1	58	85%
	2	9	13%
	3	1	1%
Difficulty	Easy	52	76%
	Slightly	10	15%
	Moderately	4	6%
	Very	0	0%
	Impossible	2	3%

with the use of cricoid pressure and a gum elastic bougie. This difficulty has been described before with the McGrath® [1] Glidescope® [29] and with the Airtraq® (Prodol Meditec, Vizcaya, Spain) [15]. The same anaesthetist was involved with both cases and while very experienced with the Macintosh laryngoscope for intubation in upper airway surgery had only 6 prior uses of the McGrath®. It is not known whether these cases represent intubations that would be extremely difficult with the described use of the McGrath® or whether more experience with it would have enabled tracheal intubation.

All of the tracheal tubes used in the evaluation were 'non-standard', comprising RAE, microlaryngeal (MLT), north facing nasal, north facing oral and the LMA Fastrach Reinforced tracheal tubes. The oral tubes were all used successfully with a Mallinkrodt stylet to form the 'hockey shape' including size 5.5 and 6 MLTs and RAEs. Nasal intubations were all performed without a stylet and indeed no adjuncts were required to facilitate intubation. All 27 nasal intubations were successful with a median time to view of 6 seconds (IQR 5.5-9, range 3-50) and median intubation time of 29 seconds (IQR 22-44, range 13-114). Nasal intubations were described as 'easy' 21 times (78%), 'slightly difficult' 5 times (19%) and once 'moderately difficult' (4%). No nasal intubations were 'very difficult' or 'impossible'. McGill's forceps, which are often employed in our hospital to facilitate naso-tracheal intubation were not required although the head position had to be adjusted (more head flexion) on five occasions. The author would propose that less force exerted on the valecula with the McGrath®, as compared with the Macintosh, results in less anatomical distortion and allows more direct passage of the nasal tube through the cords.

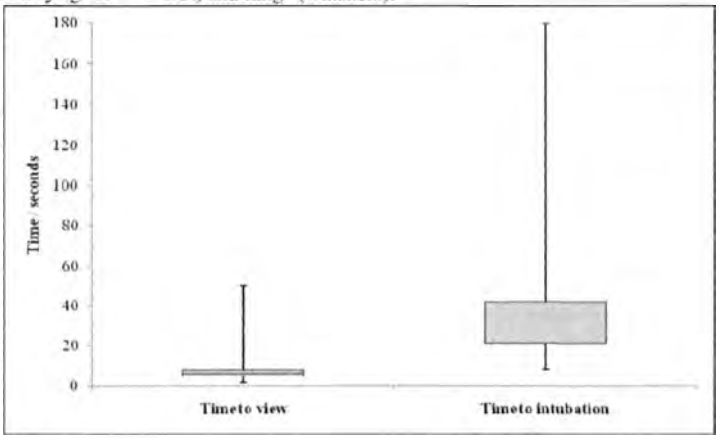
Conclusions

The McGrath® was used successfully to intubate patients attending for ENT and maxillo-facial surgery in 97% of cases. This value is similar to previous studies. It was also straightforward to achieve a 'hockey stick' shape in non-standard oral tracheal tubes such as RAEs and MLTs. The McGrath® is also useful in patients with known or predicted difficult airways, common in these types of surgery.

The anaesthetists all had limited or no prior experience with the McGrath® but despite this found the technique straightforward to learn, describing its use for intubation as 'easy' in 76% of cases. Achieving a view of the larynx was possible in every case however difficulty passing the tube through the vocal cords was described. It was not possible to intubate the trachea in 2 patients. There did appear to be a learning curve with the McGrath®, although this was not quantified.

Use of the McGrath® for nasal intubations has not previously been described. It proved useful for this route with few complications and no requirement for adjuncts for the intubation. Further larger studies and increased clinical use will show if this can be applied more generally to nasal intubations. While this is a descriptive, single centre, non randomised clinical evaluation, the data does add to previous studies, in particular its use with

Fig 2 Times to best laryngeal view and total intubation time. Box shows the median, 25th and 75th percentiles (box boundaries) and range (whiskers).



non-standard oral and nasal tracheal tubes. The McGrath® was not 100% successful and not a solution for all problems but may be a useful tool at the disposal of an anaesthetist to aid tracheal intubation.

Acknowledgements
I would like to thank the 7 anaesthetists and all the operating department practitioners and theatre staff who assisted with this evaluation.. The McGrath® Video Laryngoscope and disposable blades were provided free of charge by Aircraft Medical.

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Next are the joint winners of the North East of Scotland Society of Anaesthetists Trainee Research prize.

The Berci Kaplan Video-laryngoscope improves Glottic View with in-line Stabilisation when compared with direct Laryngoscopy in the Paediatric Simulator.

M Wilson[1], R Nagaraja[1], J Morse[2], G Wilson[1] and T Engelhardt[1]. [1]Royal Aberdeen Children's Hospital, [2]Westburn Clinical Skills Centre, Aberdeen.

Neonates have a higher more anterior larynx than adults resulting in a more acute angulation between the tongue and the glottic opening.(1) Tracheal intubation is typically achieved with direct laryngoscopy (DL) using a straight blade laryngoscope with neck extension. In order to reduce the amount of neck extension required during DL an upward and rotational movement of the laryngoscope is commonly employed. The Berci Kaplan video-laryngoscope (VL) has a video camera near the end of the blade projecting the image in real time onto a portable high resolution LCD screen, which potentially reduces the degree of laryngoscope movement during laryngoscopy. (2)
This study tested the hypothesis that the VL requires less movement during laryngoscopy when compared with DL in a local paediatric simulation center.

Methods

Following REB approval participants were recruited from anesthesia staff and residents. A Sim BabyR manikin with in-line stabilisation was utilized to provide a safe and reproducible environment. All volunteers were

Degree of angulation	Direct Laryngoscopy		Video-laryngoscopy	
	Grade 1	Grade 2	Grade 1	Grade 2
All participants	26.6 (21-41)	24.25 (13-38)	22.05* (16-34)	15.25° (10-25)
Consultants	27.6 (21-35)	24.8 (18-38)	23.5 (19-34)	15.2 (10-25)
Trainees	25.6 (21-41)	23.7 (12-36)	20.6 (16-25)	15.3 (10-21)

Table 1. DL and VL angulation for Consultants and Trainees as median (range). * p=0.0062 ° p=<0.0001.

asked to obtain a Cormack and Lehane grade 1 and then grade 2 view of the glottis with the DL and then VL. Photographs were taken at the time of each attempt and the angle of the laryngoscope handle and a horizontal line on the Sim BabyR head was measured and recorded for each view in both techniques.

Results
A total of 20 anaesthetists (10 consultants and 10 trainees) participated in this study. The degree of angulation as a surrogate measure for laryngoscope movement (median + range) for both laryngoscopes and glottic views is available in table 1. The VL reduced the angulation required for both grade 1 and 2 views when compared with DL (P<0.001). There was no difference between consultants and trainees.

Discussion
This study demonstrates that VL reduces the laryngoscope movement required to visualize the glottic opening in the simulation environment when compared with DL. This may translate into a decrease in force used for intubation in clinical practice as well as limiting the amount of neck extension and additional manoeuvres required. The VL has been shown to be beneficial in training anaesthetists unfamiliar with paediatric tracheal intubation (3) and is a useful addition to the armoury available for airway management in neonates and young children.

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LMA Cuff Pressure Survey and Pilot Audit.

Dr Mario Fernandes (SpR), Dr Grant Rodney, (Consultant, Ninewells Hospital, Dundee), Dr Louise Aldridge (Consultant, RHSC Edinburgh)

Different techniques are used for LMA cuff inflation but most institutions do not routinely measure the cuff pressure. A survey of LMA cuff pressures in an adult population at Ninewells Hospital, Dundee & a paediatric population at RHSC Edinburgh revealed higher than recommended LMA cuff pressures in 65% (n=20) & 55% (n=40) patients respectively.

Methods
The Bounce technique was used to inflate LMA's in 40 consecutive children at RHSC Edinburgh using the AMBU LMA. We evaluated the amount of air used and the cuff pressure generated using a calibrated VBM pressure gauge. All the 40 children were breathing spontaneously.

Results
The results showed that using the Bounce technique, the amount of air used was below the maximal recommended in all patients. The cuff pressures generated were below the maximum recommended (<60cmH2O) in 97.5% cases with 1 LMA (2.5%) having a pressure of 62 cmH2O. The fit of the LMA after inflation was clinically acceptable in all cases.

Conclusion
The results of the initial survey strongly suggest that cuff pressure monitoring should be mandatory. The pilot audit suggests that the Bounce technique provides a useful alternative in inflating AMBU LMA's, in the spontaneously breathing paediatric population.

Finally please find the winner of the Annual Research Competition held jointly by the Glasgow and West of Scotland Society of Anaesthetists and the Glasgow Anaesthetic Research Club.

Obstetric Anaesthesia at the Golden Jubilee National Hospital.

Dr R Snaith (Registrar), A. Macfie (Consultant Anaesthetist) and H. Walker (Cardiology Cons),GJNH

In the latest Confidential Enquiry into Maternal and Child Health, 2003-2005, cardiac disease was the leading cause of maternal death.[1] A total of 48 women died (2.27 per100,000 maternities). Over the past 2 years, since NHS Greater Glasgow & Clyde cardiac services were combined, 10 pregnant women have been referred to the GJNH for operative delivery due to underlying cardiac disease.
A validated scoring system can predict the risk of an adverse maternal cardiac event (pulmonary oedema, sustained arrhythmia, stroke, cardiac arrest or death) for pregnant women with congenital or acquired cardiac disease.[2] A point is awarded for each of the following:

(i) cyanosis (SpO_2 < 90%) or NHYA functional class ≥ III; (ii) left heart obstruction; (iii) ejection fraction (EF) <40%; and (iv) prior cardiac event (pulmonary oedema, arrhythmia, CVA/TIA). Maternal adverse event rates are 5%, 27% and 75% if allocated 0, 1 or >1 points respectively.

Aim

To review the following: indication for each maternal referral to the GJNH; anaesthetic technique for C/S delivery; and individual maternal outcome, with correlation to the individual maternal cardiac risk score.

Method

Patients were identified from the departmental paper database. Their case notes, echocardiography and imaging results were reviewed with results tabulated into the following categories: patient demographics; cardiac pathology (cyanotic, non cyanotic, congenital or acquired); details of previous cardiac surgery; presence of physiological shunt or pulmonary hypertension; ventricular function; NHYA functional status; category of C/S; mode of anaesthesia; events during surgery; postoperative complications; maternal and neonatal outcome; and cardiac risk score calculation.

Results

10 patients were identified. 9 patients delivered at the GJNH, 1 patient required emergency delivery at the Princess Royal Maternity Hospital (PRMH). Mean age was 28 years [SD 4.8]; median parity 0 [range 0-2]; mean gestation at delivery 31.5 weeks [SD 4.8]. 5 patients had undergone previous cardiac surgery before pregnancy. 5 patients were cyanotic at the time of referral.

Anaesthetic details for caesarean section:

Present in theatre for all caesarean sections at the GJNH: 2 consultant anaesthetists (cardiac and obstetric), consultant obstetrician, and paediatric team.

Urgency of C/S: one category 1 C/S (PRMH); two category 2 C/Ss; the remainder category 3.

Mode of anaesthesia: 5 patients received combined spinal epidural anaesthesia (mean spinal dose 1.16mls 0.5% hyperbaric L. Bupivicaine [SD 0.48] + 300microgms diamorphine) of which 4 required intra-operative epidural supplementation; 4 patients received general anaesthesia; 1 patient received a single shot spinal anaesthetic (2.5mls 0.5% hyperbaric L. Bupivicaine + 300microgms diamorphine [category 1 C/S]); 9 patients had invasive arterial blood pressure monitoring, 4 additionally central venous pressure monitoring. 1 patient required insertion of an intra-aortic balloon pump.

Significant intra-operative cardiac events: 2 patients; SVT requiring termination with adenosine and escalation of inotrope support for deteriorating biventricular heart failure

Intra-operative blood loss: mean 620mls [SD 249]. Syntocin was administered to all patients.

All deliveries were live births.

Postoperative details:

Mean length of stay in ICU 2.6 days [SD 3.7]. Mean length of stay in GJNH 7.3 days [SD 6.7]. There was 1 maternal death, following a period of extracorporeal membrane oxygenation (ECMO) support, and 1 neonatal death. Recorded complications included postoperative wound infection, pulmonary hypertension requiring nebulised iloprost and persistent headache (negative CT brain).

Risk scoring:

7 patients had a calculated risk score of 1 (risk of cardiac event during pregnancy =27%). 3 patients had a calculated risk score of ≥2 (risk of cardiac event =75%). The patient who died had a calculated risk score of 2 (NHYA ≥ III and EF < 40%).

Conclusion

10 patients with severe cardiac disease were referred for delivery at the GJNH. Each patient had significant risk of an adverse cardiac event during pregnancy. Due to premature labour 1 patient was delivered at the PRMH. There was 1 maternal death (risk score of 2) and 1 neonatal death. Each patient required multidisciplinary care with cardiac ICU facilities postoperatively. Applying the scoring system can help determine the best place for these women to be delivered.

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Cardiac pathology:

CHD=congenital heart disease. HD =heart disease

Cardiac pathology	Cyanotic CHD	Non cyanotic CHD	Acquired HD	Physiological shunt	Surgical shunt	Pulmonary hypertension	Fontan procedure
No.	4	3	3	5	3	5	2

Scottish Society of Anaesthetists Travel Bursary 2009

Observation of acute pain and regional anaesthesia services.

Kevin Fitzpatrick, SpR Anaesthetics, Victoria Infirmary, Glasgow

In 2009 I completed a six-month fellowship in acute pain and regional anaesthesia based in the west of Scotland. During this time I was allocated to regional anaesthesia 'focussed' lists and acute pain sessions in the hospitals across Glasgow and the surrounding area. I was fortunate enough to have the opportunity to travel to North America for two weeks to gain additional experience in a different setting. This trip was spit with one week in North Carolina and one week in Toronto. The Scottish Society of Anaesthetists generously gave me a travel bursary to help with the costs of the trip.

North Carolina

My first week was spent at Duke University Hospital, North Carolina, between the Main Inpatient Hospital and the Ambulatory Surgery Centre (ASC). I am very grateful to Professor Stuart Grant, originally from Scotland, for helping to arrange my trip and for his excellent hospitality during my stay at Duke. The most striking initial difference between working in the United States and the UK is the early start. It was a 6.30am start to see the first round of regional blocks. Worse for the patients though – they have to check in on the day of surgery at 5.30AM – imagine suggesting that to a patient in the UK!

The facilities at both sites (inpatient hospital and ASC) are excellent in terms of set-up and equipment. The main hospital has a large pre-op area with 20-30 bays where regional blocks are performed, including 4 larger designated regional bays that have Sonosite S-nerve ultrasound machines mounted on the wall. The ASC also has a well equipped block area and a 10 bedded 23-hour stay ward.

Regional anaesthetic techniques are common practice at Duke, usually with ultrasound guidance. Interestingly, patients tend to be given more generous doses of sedation to facilitate block placement than in the UK. Local anaesthetic catheters are often used with patients being discharged home with the catheter in-situ and infusion ongoing. The regional anaesthetic fellows telephone these patients after discharge, and any problems are discussed at the regular 'catheter outcome meeting' (which are held every 3-6 months). I attended one of these meetings and it was clear, that due to appropriate patient selection, the service worked both safely and effectively. Another interesting difference from the UK is that patients are given a separate consent form for general / regional anaesthesia to read and sign prior to surgery. I wonder whether at some point in the future that will become standard in the UK.

Regional block bay, North Carolina

The acute pain team at Duke carry out a formal daily ward round with the consultant, trainee and nurse all present. They review all post-operative patients with epidural or local anaesthetic infusions, acute pain problems, and any other patient referred to the pain team. The main difference I observed was that Pregabalin and Ketamine were used more commonly in the acute perioperative period than in my experience in the UK.

Toronto

The second week of my trip was in Toronto

at the Western Hospital where a large volume of elective orthopaedic surgery is performed. Initially I was concerned to discover a church and a funeral home directly opposite the hospital, but I was assured that this was entirely co-incidental and not a reflection on the hospital outcomes! I attended their ultrasound guided regional anaesthesia course, which was well organised and comprehensive, followed by their regional preceptorship. The preceptorship consists of a period of 2-4 days spent observing regional anaesthesia in their block room. The set-up is very structured with patients for total knee replacements being given spinal anaesthesia, femoral nerve block and catheter, and single shot sciatic blocks, and patients for total hip replacement having spinal anaesthesia. Upper limb surgery is done using predominantly supraclavicular brachial plexus blocks and less frequently axillary blocks.

Summary

The main learning points for me were the differences in set-up in North America as compared the UK. Both Duke and Toronto make use of a well equipped pre-op area where blocks can be performed and timed so that next patient is ready for theatre just as the previous patient is coming off the operating table. This clearly requires two anaesthetists to be available, one to perform the block while another is with the patient in theatre. A major benefit of the use of a separate area for performing regional anaesthesia is that all the equipment can be kept in one place so it is immediately available. In terms of learning block techniques it was useful to observe ultrasound-guided paravertebral and saphenous nerve blocks which I had little previous experience of, as well as picking up tips to improve my technique at the regional blocks I perform currently.

Peebles 2009

As in previous years, the society's Spring Meeting was held in Peebles Hydro on Saturday 18th April. The Trainees Meeting was held on Friday 17th and is described elsewhere.

The traditional Friday golf rave was won by Steven Lawrie with an impressive worst-to-first performance given his booby prize status in 2008. Another member of the Crosshouse department, Paul Wilson, stepped into the breach to preserve its success in the booby prize area. Lindsey Dougall won the Ladies Prize. The sporting theme continued with the 5K run at 6pm and props to Steven for competing in the 5K only minutes after completing his winning round at the golf course. A field weakened by the absence of customary winner Alex Patrick saw Stephan Dalchow lift the men's prize and Megan Dale the women's prize.

After a positive response to the change in timings last year, the Society AGM kicked off at 0830 on Saturday 18th to allow a finish time of 1500 for the whole programme. Jim Dougall from the Western Infirmary in Glasgow was elected as Vice-President. Andrea Harvey, Matthew Checketts and Grant Haldane slipped away into the non-Council night after sterling service. They were replaced by Caroline Whymark (Crosshouse), Fiona Cameron (Dundee) and Donald Macleod (Aberdeen). Kerry Litchfield's report of the Society's finances gave details of the forthcoming switch to a direct debit system.

The first speaker was Aidan O'Donnell who gave the Keynote Lecture "Little white lies – a discussion of the placebo effect." Aidan had been highly recommended by a Council member and did not disappoint. The Registrars Prize presentations followed after coffee with contributions from Joellene Mitchell, Stephan Dalchow, David Seath and Hanlie du Plessis. All did well. A highlight was Stephan introducing himself as the oldest anaesthetic trainee in the world presenting to the oldest national anaesthetic society in the world.

After lunch, John May was installed as President. His Presidential Address followed, mainly concerned with the fishing and weaving industries on Scotland's East coast. The strain on John was increased by a PC/ Mac compatibility problem of extraordinary proportions. Once this was tackled, a fascinating account of those industries and way of life followed.

After lunch, Professor Alistair McGowan spoke about the future shape of the workforce. His account of the current position and the challenges ahead (mostly relating to suspect organisational arrangements in other specialties) was delivered with clarity and humour. I was reassured by his common sense and understanding of our efforts and difficulties.

The meeting closed with John presenting the Donald Campbell Quaich to Hanlie du Plessis for her very good presentation earlier. Later in the day at the President's Reception, the final prizes of the meeting were handed over – to Janey Collie for the laser pigeon shooting and to David Gerber for tennis. The Society's Annual Dinner Dance rounded off the meeting. The 2009 dance was a particular treat – with contributions from all generations and an unusually relaxed and jovial atmosphere. Long may it continue.

John and Janice

John McClure and Aidan O'Donnell

Professor Alistair McGowan, Guest lecturer

The executive

Sarah Cross - our new trainee rep

Trainee presenters - David Seath, Joellene Mitchell, Hanlie du Plessis and Stephan Dalchow.

Aidan and family

My body is a temple.

Jane Macrae, piper, before and after.

Prizes and dances.

Donald Campbell Quaich

Interscalene blocks for daycase shoulder surgery: introducing a new technique to suit our patient population.

Hanlie du Plessis, Sonya McKinlay and Malcolm Booth. Glasgow Royal Infirmary

Interscalene brachial plexus block (ISBPB) provides superior analgesia for arthroscopic shoulder surgery (ASS) [1,2] and allows it to be performed as a day case procedure [3]. Previously patients required a 2 day hospital stay in our institution. We aimed to perform the surgery under ISBPB and general anaesthesia as day case procedures.

Methods
73 patients received ISBPB and peripheral nerve catheter placement prior to general anaesthesia. The ISBPB was performed with a 30ml mixture of 1% lignocaine with adrenaline and 0.25-0.5% levobupivacaine. Postoperatively a 30 ml bolus of local anaesthetic (0.333%-0.5% levobupivacaine) was administered prior to nerve catheter removal and discharge. Data collected included block duration, side effects and patient satisfaction (1=very dissatisfied to 5=very satisfied). Pain scores (verbal descriptor scale from 0 to 10) were assessed in recovery room (RPS), the next day as worst overnight pain score (WPS) and as best overnight pain score (BPS).

Results
Mean duration of block was 9.4 hours (SD 3.34). Median RPS was 0/10 (IQR 0-0/10, range 0-4/10). Median WPS was 4/10 (IQR 1-6/10; range 0-10). Median BPS was 0/10 (IQR 0-2; range 0-7). Patient satisfaction was median=5 (IQR 5-5; range 1-5). Nausea and dizziness occurred in 19/73 (26%) of patients. 58.9% of patients reported the same as or better level of sleep than normal, on their first postoperative night.

Conclusion
ISBPB achieves excellent pain relief, low complication rate and high patient satisfaction. A technique of bolus topup rather than continuous infusion has made day case surgery possible and improved service delivery.

Our President presents the Quaich

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Observation of Respiration after Caesarean Section under regional anaesthesia with intrathecal opioids: a comparison between diamorphine and fentanyl combined with post-operative morphine PCA

S. Dalchow, G. Peters, A. Harvey, T. McGrattan and A. Binning. Depts Anaesthesia, Gartnavel Gen Hosp, Glasgow Royal Inf, Southern Gen Hosp, Glasgow.

Respiratory depression may be detected by a rise in transcutaneous carbon dioxide levels ($PtCO_2$). Most centres in the UK now use supplementation of spinal anaesthesia from bupivacaine with intrathecal fentanyl or diamorphine for lower uterine caesarean section

(LUCS). Intrathecal Fentanyl is usually combined with an IV Morphine PCA device postoperatively. There is controversy about which method is safer regarding respiratory depression. TOSCA, a non-invasive monitor with a single earlobe probe has been used with ventilated patients, in sleep laboratories and in studies comparing epidural infusion against Morphine-PCA.

Methods
This observational cohort study included 90 ASA I and II patients, monitored from the recovery room until 8am the following morning. Mothers in Group 1 received 300µg Diamorphine added to bupivacaine. Group 2 received 15µg Fentanyl as additive, 10mg im-Morphine in the recovery room and was connected to a Morphine-PCA. No supplemental oxygen was given. Pain Scores were recorded 6-hourly.

Results
The post-operative mean $PtCO_2$ was significantly higher in the Diamorphine Group with 4.96 (3.6-7.0) ($p=0.00019$) compared to 4.42 (3.7-6.0) in the Fentanyl/PCA-Group. There was no significant difference in the mean Oxygen Saturation. Episodes of sustained hypercapnia occured in 8/45 Patients (17.8%) in the Diamorphine Group and 3/45 (6.7%) in the Fentanyl/PCA Group ($p=0.11$). Pain Scores after 6, 12 and 18h were significantly higher in the Fentanyl/PCA Group.

Conclusion
$PtCO_2$ recordings in patients who received intrathecal diamorphine revealed hypercapnia in the presence of normal SpO_2 values. There was also sustained hypercapnia in individual patients in the Fentanyl/PCA Group. Intrathecal Diamorphine provides significantly better analgesia in the post-operative period.

Use of acupuncture to reduce gagging during the insertion of an oral airway.

J Mitchell[1], S Jeffrey[1], V Lochhead[2]. [1]Dept Anaesthetics, Victoria Infirmary, [2]Dept Anaesthetics, Institute of Neurological Sciences, SGH, Glasgow.

Inability to obtund the gag reflex during awake fibreoptic intubation (AFOI) can occur. This increases patient anxiety, discomfort and reduces tolerance of the procedure. Acupuncture successfully suppresses the gag reflex in patients undergoing dental procedures and transoesophageal echocardiography.[1,2] Efficacy of Chengjiang CV-24 acupuncture point in dental patients with severe gag reflexes has been shown to moderate the reflex in the majority of these patients to allow dental treatment.[1] We investigated the potential benefits of using acupuncture at the CV-24 point to suppress the gag reflex during the insertion of a Berman airway device, used to facilitate passing a fibrescope and endotracheal tube during an AFOI.

Methods
This was a blinded randomised controlled trial. After receiving Local Research Ethics Committee approval, 45 healthy volunteers were recruited and consented. All subjects were asked to insert an appropriately sized Berman airway and retain it for as long as they could tolerate, up to 20 seconds. Gagging was assessed using a modified Gag Severity Index Score[1], and the time the airway was tolerated recorded. Subjects were also asked to score the acceptability of the procedure and their urge to gag. They were then randomised to receive real acupuncture, placebo (sham) acupuncture, or no acupuncture (control). Real acupuncture needles were inserted to a depth of 3mm into the CV-24 point (midline between lower lip and chin). Placebo Streitberger style needles[3] were positioned 1cm below the CV -24 point. A 'Minimalist' approach was used with the needle being manipulated for 30 seconds and then removed. A sticking plaster was placed over the volunteer's chin in order to blind the observer. Volunteers then reinserted the airway. All observations were reassessed. Subjects were unaware if they had received real or sham acupuncture.

Results.
16 volunteers received real acupuncture, 16 volunteers received sham acupuncture and 13 volunteers were randomised to the control group. There was no difference in the demographics between each group. A statistical comparison using Wilcoxon rank sum analysis showed no statistical difference in the gag reflex, duration, desire to gag or level of acceptance in the control group. Both the sham and real acupuncture groups showed statistical significance in the gag reflex ($p<0.025$), duration ($p<0.025$), desire to gag ($p<0.01$), and level of acceptance ($p<0.01$). Most volunteers found the procedure more acceptable on the second attempt, and greater than 50% of volunteers had less desire to gag.

Conclusion
We conclude that acupuncture may well suppress the gag reflex significantly when inserting a Berman airway after receiving acupuncture to the CV-24 point, and thus may be a useful adjunct in an AFOI. We have demonstrated a clear placebo effect from the sham acupuncture group which may itself be beneficial. The benefit of acupuncture may be particularly significant in those patients with severe gag reflexes and requires a larger scale study in this group of people.

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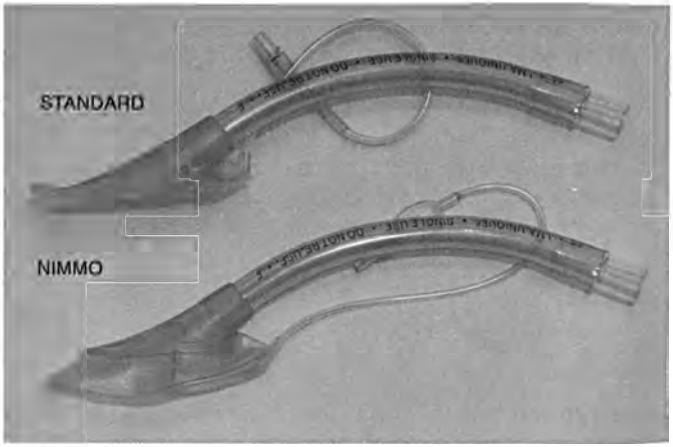

Nimmo Insertion Technique of Laryngeal Mask Airway in Adults

Seath D, Anderson V, Johnston G, Engelhardt T. Dept Anaesthesia, Aberdeen Royal Infirmary.

The laryngeal mask airway (LMA) is synonymous with modern anaesthesia. The elegant LMA design results a high rate of first time insertion success exceeding 75% using the manufacturers recommended technique. However, a simple alteration to the shaping of this device prior to insertion may further improve this success rate. Anterior flexion of the tip of the deflated LMA may improve the ability to negotiate the passage past the posterior pharyngeal wall potentially resulting in less airway trauma and postoperative discomfort. This hypothesis was tested in a prospective randomised controlled trial.

Methods
Following REB approval and written informed consent healthy patients undergoing minor urological procedures under general anaesthesia were recruited. Following induction of anaesthesia patients were randomly allocated to either the standard insertion technique (S) or the Nimmo insertion technique (N) with 20 patients per group. Time to successful insertion, ease of insertion (easy, minor difficulty, major difficulty, failure), number of insertion attempts, fibre-optic view of the glottis through LMA (1= full view to 4= no view)[2] and postoperative airway discomfort (none, mild, moderate, severe) were recorded. Results were analysed using unpaired t-test and chi-square tests as appropriate.

Results
Forty patients aged 51 (±17) years and a BMI 26.7 (±3.7) successfully completed the study. Time to LMA insertion was 134 (±40) s and 134 (±43) s in the standard and Nimmo group, respectively. In the standard group 17 LMA's were inserted on the first attempt, 12 with ease and 5 with minor difficulties, two were inserted after the second attempt with major difficulties and one LMA insertion was unsuccessful after 3 attempts. In the Nimmo group 16 were inserted with ease on the first attempt and 3 with minor difficulty. Only 1 patient required a second attempt at insertion (p=0.15). Median fibre-optic score in the standard group was 2, compared with 2.5 in the Nimmo group. Fourteen patients had no and 6 patients had mild airway discomfort in the standard group, with 17 and 3 patients, respectively in the Nimmo group. All LMA insertions were sufficient for spontaneous ventilation.

Discussion
This limited study demonstrates that the LMA Nimmo insertion technique results in a higher success rate of first time insertion and a lower incidence of postoperative airway discomfort without prolonging the time to insertion of the LMA or changing the fibreoptically verified position of the LMA. Assuming a two -tailed $\alpha = 0.05$, $\beta = 0.1$ (power = 90%) a further 154 patients are to be studied to demonstrate a statistical significance at the ease of insertion and a further 276 patients for postoperative discomfort. In conclusion, this study demonstrates the Nimmo technique is at least a viable alternative to the standard technique for LMA insertion.

Editor's note. The 4 abstracts above competed for the Donald Campbell Quaich. The 2 below won prizes in the Trainees' Poster competition.

Do Not Attempt Resuscitation (DNAR) orders: Decision making and training in two Scottish Hospitals.

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*Dept Anaesthesia, Southern General Hospital, Glasgow, #Dept Anaesthesia, Crosshouse Hospital, Kilmarnock Road, Kilmarnock

The role of CPR (cardiopulmonary resuscitation) extends beyond its original remit[1]. Many hospitals use DNAR orders to prevent the inappropriate use of it or other futile interventions. There is a spectrum however, of what a DNAR order implies[2]. 383 doctors and nurses were surveyed regarding their training and experience in

issuing DNAR orders and for factors which would influence their decision to do so.

58% of doctors and 14% of nurses had been involved in issuing a DNAR order. 25% of doctors and 8% of nurses had received formal training in this practice with 48% of doctors and 68% of nurses desiring further training. 60% of doctors and 20% of nurses felt comfortable or competent to issue a DNAR order. There was general agreement between nurses and doctors regarding conditions which would influence the institution of a DNAR order. The most common factor was an advanced directive from the patient (80%), followed by metastatic cancer (47%) and "locked in syndrome" (24%). Doctors and nurses differed on the importance of family wishes with 18% of nurses and 3% of doctors feeling that these should be an indication for the institution of a DNAR order.

There is a lack of formal training in the issuing of DNAR orders and a desire within both medical and nursing ranks to see this addressed. There is a difference in the perception of the role of family in involvement of DNAR decision making between doctors and nurses.

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Maternal Intravenous Drug Abuse: Effects on Anaesthetic Workload. R Snaith, K Simpson, K Litchfield, Dept Anaesthesia, Princess Royal Maternity Hospital, Glasgow.

Opioid dependant parturients can have a considerable impact on anaesthetic services[1]. Challenges include analgesic management, intravenous access and medical co-morbidity[1,2]. We aimed to determine the anaesthetic workload of parturient intravenous drug abusers (IVDAs) in our unit.

Method

IVDAs were referred antenatally to the anaesthetic high-risk clinic. This paper database was cross-referenced with the maternity computer database between 2005-2008. We recorded maternal demographics, delivery statistics and anaesthetic interventions. Data were analysed using Microsoft® Excel.

Anaesthetic service requirement	Patient no.	% of cohort	Unit av. (%)
Anaesthetic antenatal review	43	100	4
Central venous access	2	4.7	N/A
Epidural analgesia for labour	4	9.3	26
Anaesthesia for Caesarean section	20	46.5	31.5
Admission to High Dependency	1	2.3	1.6
Admission to ICU	1	2.3	0.06

Results. Maternal IV drug use

Results

43 IVDAs were identified. Median maternal age 33yrs [range 21-43yrs]. Six primiparous women. 41 singleton deliveries; one twin delivery (delivery details for one parturient unavailable). Median gestation at delivery 39wks [range 25-41wks]; 8 (19%) before 37wks. Deliveries were: SVD 22 (51.2%); instrumental 1 (2.3%); caesarean section 20 (46.5%) [unit average 31.5% (p=0.0349)]. 22 (51.2%) parturients required an anaesthetic intervention in the peripartum period.

Conclusion

Parturients with a history of intravenous drug abuse utilised a significant amount of anaesthetic services. This was primarily as a result of an increased caesarean section rate. This audit highlighted the importance for anaesthetic services to be alerted when IVDAs are admitted to the obstetric unit for delivery.

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Editor's note. The following abstracts are the remaining entrants for the 2009 Trainees' Poster competition.

Post osteotomy pain – local anaesthetic techniques. Andrew Powell FY2, RIE, Jennifer Service FY2, RIE, Grant Price Consultant, SJH/RIE. Dept Anaesthetics, St John's Hospital.

A wide variety of local anaesthetic and analgesia prescription practices exists within our department for foot osteotomy operations. We aimed to compare regional blocks against each other and against subcutaneous infiltration. We wanted to determine whether local anaesthesia technique influences post-

operative pain and analgesia requirement.

Methods

This is a prospective audit of 44 patients from August 2007 to May 2008 undergoing osteotomy operations at our institution. We collected data post-operatively by means of a subjective patient questionnaire measuring pain scores at 3 fixed time intervals. An analgesia review looking at drug charts was also conducted to determine time to dose of first strong analgesic.

Results

8 different nerve block techniques were used. There were 16 different combinations of operative procedures performed by 2 surgeons. 14 different anaesthetists were involved. Our audit suggested that when comparing block vs. no block, there was less immediate post operative pain with nerve blocks, but more delayed post-operative pain. When comparing block vs. block, the superior nerve block appeared to be the ankle block, when compared to other techniques showing less immediate post operative pain, but more delayed post-operative pain.

Conclusion

We hypothesise that nerve block techniques are superior to subcutaneous infiltration when comparing initial post-operative pain scoring. Of these it appears that ankle blocks are superior. We suggest that increased delayed pain which seems to be prevalent in the cohort of patients that received nerve blocks is secondary to inadequate analgesia delivery on the post-surgical wards, typically overnight when local anaesthetic effects subside.

Audit of blood transfusion practice in peri-operative patients. Simon Evans, SpR, Glasgow Royal Infirmary

Current guidelines recommend restrictive transfusion strategies; a transfusion threshold of 7 g/dl is safe, although patients with cardiovascular disease may benefit from a threshold of 9 g/dl 1 (SIGN guideline 54).

Patients were included who were transfused in Theatre at Glasgow Royal Infirmary; obstetric patients were excluded. Audit standards included:

100% patients have blood loss documented.

100% patients have documented transfusion threshold.

Transfusion threshold 7 g/dl for patients without comorbidity.

Transfusion threshold 9 g/dl for patients with significant comorbidity e.g. cardiorespiratory disease

Student's two tailed t-test was used for statistical analysis. 50 patients were included, comprising 53 separate transfusion episodes. Blood loss was documented in 34 episodes (64%). Transfusion threshold was documented in 7 episodes (13%).

No significant difference was noted between mean haemoglobin concentrations or mean transfused volumes in patients with or without comorbidity; this suggests both groups had similar transfusion thresholds.. The mean discharge haemoglobin of 9.9 g/dl suggests that fewer units could be transfused and a lower threshold (7g/dl) used in patients without comorbidity.

	No Comorbidity	Comorbidity
Number patients	28	22
Mean Pre-op Hb g/dl (range)	11.20 (7.4-16.7)	10.94 (6.3-14.4) p=0.66
Mean Day 1 Hb g/dl (range)	9.56 (7.5-12.1)	10.01 (8.1-12.4) p=0.18
Mean Discharge Hb g/dl (range)	9.87 (7.8-12.3)	10.33 (8.8-11.9) p=0.29
Mean Blood loss (ml) (range)	1600 (600-4000)	1637 (300-5000) p=0.93
Units transfused (range)	2.56 (1-6)	2.48 (1-6) p=0.82

Evaluation of Current Anaesthetic Practice for Glue Embolisation of Intracranial AV Malformations. S Dalchow, N Roy, V Lochhead. Institute of Neurosciences, SGH

Complex cerebrovascular arteriovenous malformations are being treated in increasingly complex unwell patients. Microballoons, solidifying polymers, embolic agents, digital subtraction angiography, micro-guide wires and catheters have greatly improved access to the intracranial circulation and reduced morbidity. We felt it would be beneficial to identify current practice throughout the UK. We conducted a postal survey of 27 neurosurgical centres in the UK on anaesthetic management for Glue Embolisation (GE).

Results

93 anaesthetists replied from 23 centres (85.2%). 81/93 (87%) anaesthetised routinely GE. 53/81 (65.4%) had no unit protocols. In 3/23 (13%) a protocol for anaesthetic management existed. 79/81 anaesthetists (97.5%) stated general anaesthesia (GA) as routine practice. Of these 43 (53.1%) used Propofol-TIVA combined with remifentanil. Sevoflurane was used by 26/36 (72.2%) of those using volatile. 2/81 (2.5%) used local anaesthesia with sedation. Vecuronium was used for neuromuscular blockade by 28/64 (43.8%). No-one used spontaneous ventilation. 72/81 (88.8%) intubated and 9/81 (11.1%) use LMA with IPPV. 42/81 (51.9%) monitor temperature. Warming blankets are used by 54/81 (66.7%). 49.3% give no supplementary analgesia at the end of procedure. 54/81 (66.7%) performed extubation awake. 22/81 (27.1%) extubate deep. 5/81 (6.1%) use LMA and deep extubation. 53/140 (37.9%) favoured Labetolol for post-operative hypertension. HDU care post-op is routine in 16/23 (69.6%).

Conclusion

Deep extubation to avoid risks to an unstable vascular malformation is not practiced by the majority of respondents. Likewise neither is protocol based management for post-operative sedation and blood pressure control. There is marked inter-individual variation in anaesthetic practice.

A local audit of obstetric anaesthetic services. L McGarrity, C Urquhart, R O'Connor, S Young. Dept Anaesthetics, North and South Glasgow NHS Trusts.

In May 2005, the OAA and AAGBI published 'Guidelines for Obstetric Anaesthetic Services-Revised Edition'. This included standards concerned with Antenatal Education, Consent and Timing of Epidural Anaesthesia. These standards could be audited by aiming a questionnaire at women in the postnatal period and with reference to their medical notes from their time in labour. This was commenced 6 months after the release of the guidelines.

Methods

With local ethical committee approval a three-centre survey was carried out in the Glasgow area. 100 women were approached in each unit in the early postnatal period and after giving consent, offered a questionnaire on antenatal education and consent. If the individual woman had regional analgesia or anaes-

thesia, the relevant information was then obtained from their medical notes, regarding documentation of consent and timing of epidural analgesia. A total of 295 questionnaires were completed.

Results

In the Glasgow area, more women (86-99%) received information regarding analgesia for labour than received information regarding anaesthesia for caesarean section (28-61.1%) despite a significant proportion of caesarean sections being non-elective. The source of this information was variable and of unknown quality. The recommended process for and documentation of consent for anaesthetic procedures, was being carried out by most obstetric anaesthetists. This process was more likely to be carried out for regional than general anaesthesia. Delays in epidurals (>30 minutes) from the time of request were variable between the 3 local centres (5.3-32.1%).

Conclusion

This audit has helped to describe the patient experience of obstetric anaesthesia in Glasgow. It has highlighted areas for improvement and could be used to plan resources in the future.

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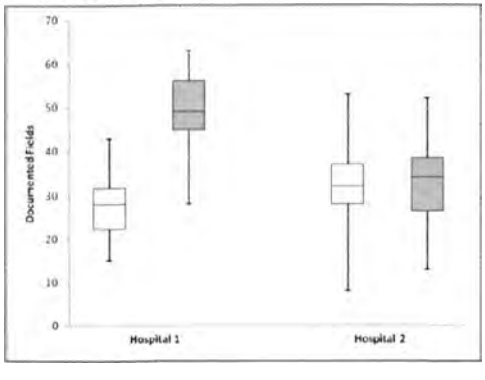
Anaesthetic documentation – are we up to scratch? Ulyatt BC, Edwards R, Tallentire V, Burke D. St. John's Hospital.

Recommendations for the content of anaesthetic records have existed since 1996(1). In 2004 we audited anaesthetic documentation against these criteria in 2 district general hospitals in South East Scotland(2). Documentation overall was of poor quality reflecting the charts' designs which only had specific prompts for 32% and 47% of recommended fields. In 2005 we introduced a new chart to hospital 1 and repeated the audit in August 2008 to ascertain whether the new chart is associated with improved documentation.



Results

Documented information from 55 charts in the 2 hospitals was examined. Data was compared with 2004 and analysed using the Mann-Whitney U test. The median number of relevant fields documented in hospital 1 was 49(IQR 45-56) and hospital 2, 34(27-39). This compares with 2004 figures of 28(22-32) and 32(28-37). This improvement in hospital 1 was statistically significant ($p<0.0001$). There was no significant change in hospital 2 ($p=0.60$).

Conclusions

The introduction of the new chart to hospital 1 coincided with improved documentation. We would suggest that the specific fields in the new chart explain this. Our chart is used across South East Scotland and two other Scottish hospitals allowing familiarity for rotating trainees and organisations reviewing anaesthetic documentation.

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Rubbing salt into our patients' wounds? Inadequate knowledge of postoperative salt and water requirements. Paton L, Ball DR, Jefferson, Anaesthetic Department, Dumfries & Galloway Royal Infirmary.

Studies have demonstrated worse outcomes when excess intravenous fluid and salt is administered following colorectal surgery(1,2). Recent guidelines therefore advocate postoperative intravenous fluid regimens that are sodium poor and avoid fluid overload(3). In 2001, Lobo et al. highlighted inadequate knowledge and suboptimal prescribing of fluid and electrolytes by junior doctors(4). We surveyed 18 FY1s at a district hospital to determine whether prescribing practice has improved and reflects current guidelines.

Although FY1s are solely responsible for prescribing fluids in 78% of cases, more than half felt ill-equipped by undergraduate tuition (PTO). Knowledge of the sodium content of intravenous fluids is poor and consistent with the findings of Lobo. The median volume of intravenous fluid prescribed was 3000ml / day (range 2500 - 3000) and sodium replacement varied from 154 to 308 mmol / day (median 154). Both exceed current guidelines. 94% of respondents would increase fluids solely in response to mild oliguria and none reported patient weight (the best serial measure of fluid balance) as a factor influencing their prescribing practice. These findings are consistent with studies that predate new guidelines on IV fluid therapy in surgical patients and suggest an ongoing need for improved tuition on fluid and electrolyte replacement, coupled with a drive to encourage a switch to more moderate prescribing.

References

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2.Brandstrup B, Tønnesen H, Beier-Holgerson R et al. Effects of intravenous fluid restriction on postoperative complications: comparison of two perioperative fluid regimens: a randomised assessor-blinded multicenter trial. Annals of Surgery 2003; 238: 641-8
3. Powell Tuck J, Gosling P, Lobo DN et al. British Consensus

	Current cohort (%)			Lobo et al.4 (%)		
	Correct	Incorrect	Don't know	Correct	Incorrect	Don't know
Normal saline	33	11	56	44	36	20
Hartmann's sol'n	6	39	56	16	20	64
Gelofusine	28	44	28	38	54	8

Guidelines on Intravenous Fluid Therapy for Adult Surgical Patients (GIFTASUP). London: 2008.
4.Lobo DN, Dube MG, Neal KR, Simpson J, Rowlands BJ, Allison P. Problems with solutions: drowning in the brine of an inadequate knowledge base. Clinical Nutrition 2001; 20: 125-30

The use of "standard" adult endotracheal tube sizes - a survey. Facey N, Greenhalgh C. Glasgow Royal Infirmary

Evidence shows that the use of small (6.5mm to 7mm internal diameter) endotracheal tubes significantly reduces the incidence of post intubation sore throat and hoarseness(1), whilst having no adverse effect on airway resistance and work of breathing (2). Despite this, it has been suggested that the use of 8mm and 9mm internal diameter tubes (for adult females and males respectively) remains standard practice in the UK (3). We aimed to identify the endotracheal tube sizes in routine use in our tertiary hospital, and anaesthetists' rationale for their choices. A questionnaire survey was sent to all Consultants working in the Anaesthetic Department of the Glasgow Royal Infirmary.

Results

Of 35 questionnaires posted, 25 were returned (response rate 71%). Endotracheal tubes in routine use for adult males without anticipated airway difficulties varied from 8mm to 9.5mm internal diameter, with 16 anaesthetists (64%) using a 9mm tube. Endotracheal tubes in routine use for adult females varied from 7mm to 8.5mm internal diameter, with 18 anaesthetists (72%) using an 8mm tube. Common reasons for choice of "standard" tube sizes were "habit and convention", and that it reflected their training. Two comments specifically mentioned lower airway resistance as a reason for using larger sizes. Reasons given for using smaller sizes were ease of insertion, and the belief that larger tube sizes are associated with an increased risk of trauma.

Discussion

The findings in our hospital are in line with the suggestion that the use of 8mm and 9mm endotracheal tubes remains standard practice in the UK. Concerns regarding airway resistance and work of breathing with endotracheal tubes in adults are primarily an issue with intubated spontaneously ventilating patients. However, since the introduction of laryngeal mask airways this technique is rarely used. We therefore advocate a move towards the use of smaller endotracheal tube sizes to improve patient morbidity. We conclude that the choice of adult endotracheal tube size largely reflects convention and training, and is not evidence based.

References:

1. Stout DM, Bishop MJ, Dwersteg JF, Cullen FC. Correlation of endotracheal tube size with sore throat and hoarseness following general anaesthesia. Anesthesiology 1987; 67:419-21
2. Koh KF, Hare JD, Calder I. Small tubes revisited. Anaesthesia 1998; 53:46-50
3. Wharton NM, Cook TM. Size of tracheal tubes. Anaesthesia 2007; 62:851-2

Alarms in the ICU – A Snapshot Study. Dr K Yathish, Mr B Sheppard, Dr M Worsley, Stirling Royal Infirmary.

The literature demonstrates that most intensive care units exceed the standard recommendations for noise levels in hospitals(1), and that high noise levels have negative impact on patients and staff(2). The purpose of this study was to evaluate the incidence of alarms in our adult ICU.

We studied the incidence of alarms in a 4 bed bay with 3 inpatients, in our ICU. One was ventilated and two awaited HDU/ward beds. All alarms were recorded over a 60 minutes on one night, noting their relevance. Clinical relevance was determined by the in-charge nurse. An alarm was deemed relevant if it either led to clinical action (e.g. a finished infusion) or warranted an observation (e.g. a persistent rise in heart rate). Otherwise, the alarm was recorded as irrelevant.

Our alarm rate was 1.9 per minute (112 alarms in 60 minutes), of which 79.5% was determined as irrelevant. We conclude that we have a very high false positive rate of alarms. We suggest a twofold strategy to decrease the level of alarms in an ICU. 1) Staff education – intelligent use of alarms and regular monitoring, 2) Design – equipment and architectural.

References:

1. WHO – 1999 guidelines, Background noise in hospitals
2. The Impact of Noise in the ICU: Intensive Care Medicine, Annual Update 2007 JL Vincent

Consent for Epidural Analgaesia- What do women really remember? JV Wilkinson, SC Rowell, J Collie. Dept Anaesthesia, Ayrshire Maternity Unit, Crosshouse Hospital.

It is a legal requirement for labouring mothers to understand and consent to epidural analgesia. However, dubiety exists over their ability to do so in such painful, stressful circumstances. Our aim was to assess the effectiveness of the consent process in our unit. This currently involves provision of information in the community, laminated sheets in the labour room and verbal consent by the anaesthetist, reinforced by midwives. We conducted a 4 week questionnaire-based prospective audit involving 65 mothers aged between 18 and 39. Data collected detailed when epidural analgesia was first considered, when information was first received and recall of complications explained.

Results

40% of mothers first considered an epidural and 18% first received information regarding epidurals once in established labour. The remainder had considered and received information before or during pregnancy. 77 % remembered complications having been explained by the anaesthetist, however only 41% could specify what these were. 23% stated no complications had ever been detailed. Most commonly recalled complications were nerve damage (41.5%), post dural puncture headache (32%), backache (14%) and hypotension (9%). The actual most common complication, failure, was only mentioned by 4 patients (6%).

Discussion

Our audit showed poor comprehension of complications associated with epidural analgesia.. There was a lack of appreciation of failure rates, and more than 1 in 10 stated backache as a complication. Earlier provision and update of information provided in labour suite, in accordance with recent publica-

tions, and implementation of tick boxes on epidural charts outlining complications may help overcome these issues.

References

Consent for regional anaesthesia in the United Kingdom: what is material risk? G.D Kelly, C Blunt, P.A.S Moore, M Lewis IJOA April 2004;13:71-74

Women in the 21st century deserve more information: Disclosure of material risk in obstetric anaesthesia F Plaat, A McGlennan IJOA April 2004; 13: 69-70

NICE guidelines for caesarean sections: implications for the anaesthetist M.Y.K Wee, H. Brown, F. Reynolds IJOA April 2005; 14::147-158

Women need to be told ALL the risks before regional techniques are performed. R Landau IJOA October 2006; 15: 301-30

Women should be told ALL risks before regional anaesthesia is performed V Clark IJOA October 2006; 15: 303-305

Epidural analgesia in labour- a comparison of three regimens on anaesthetic related workload. N Sharma, M Kumar. Aberdeen Maternity Hospital, Aberdeen Royal Inf

Patient controlled epidural analgesia might help to decrease physician related workload(1) and improve patient satisfaction levels. Various regimens of PCEA have been studied with equivocal results(2). We present the findings of 3 successive audits at our centre using 3 different regimens of epidural analgesia.

Methods:

A retrospective audit was done including 240 patients on continuous infusion [CI] epidurals over a 7 month period. Anaesthetic intervention data, patient satisfaction levels and reasons of anaesthetic interventions were recorded from the standard departmental labour epidural data sheets. With a view to decrease anaesthetic workload, we then changed the unit policy to the use of [PCEA-CI + small bolus].We retrospectively audited 50 patients over a 2 month period for the same parameters. In view of equivocal results of the audit, we changed over to PCEA [Bolus only] following it up with a prospective re-audit over the next 2 months.

Results	Anaesthetist involvement for top-ups	Anaesthetist involvement for all reasons
Continuous[CIEA]	95/240 [39.58%]	116/240 [48.33%]
PCEA-CI + small bolus	12/50 [24%]	17/50 [34%]
PCEA-bolus only	7/50 [14%]	8/50 [16%]

The anaesthetist involvement decreased substantially from 39% in the CIEA Group to 14% in the PCEA [Bolus only] group. Patient satisfaction improved to a highest [97%] in the PCEA [Bolus only] group.

Discussion:

The results of the audit suggest that PCEA Bolus only regimen is the most effective regimen in decreasing the anaesthetic related workload while maintaining very high levels of patient satisfaction in labour epidural analgesia.

Reference

1. Van der Vyer M, Halpern S, Joseph G. Patient-controlled epidural analgesia versus continuous infusion for labour analgesia: a meta-analysis. Br J Anaesth 2002; 89: 459-65.

2. Lim Y, Ocampo CE, Supandii M, Teoh WH, Sia AT. A randomised control trial of three patient-controlled epidural analgesia regimens for labor.

Randomised crossover comparison between the i-gel and the LMA Unique in anaesthetised, paralysed adult patients. S. Gangaiah[1], V. Uppal[1], G. Fletcher[2] and J. Kinsella[1]. 1 - Section of Anaesthesia, Pain and Critical Care, Faculty of Medicine, University of Glasgow; 2 – Dept Anaesthesia, Royal Alexandra Hospital, Paisley.

The i-gel (Intersurgical Ltd) differs from other supraglottic airway devices (SAD) in that it has a softer and a non-inflatable cuff [http://www.i-gel.com]. Our study was designed to compare the time required for insertion and adequacy of seal of the i-gel and the LMA Unique (Intavent Orthofix) when used during controlled ventilation.

Methods.

Following institutional ethics committee approval and written informed consent, 40 patients were recruited to a prospective randomised crossover clinical trial comparing the performance of the i-gel with the LMA Unique. Patients received a standard anaesthetic technique (TCI Propofol, fentanyl and rocuronium) followed by an initial placement of either the i-gel or the LMA Unique randomly. We measured the time for insertion, the number of insertion and reposition attempts, airway leak pressures, leak volumes and leak fractions. Following these observations, the first SAD was removed and replaced with the other one. The same recordings were then repeated with the second SAD.

Results.

	i-gel	LMA Unique	p value
Insertion times; seconds	12.2 (9.7-14.3)	15.2 (13.2-17.3)	0.007
Insertion attempts			
First	38	39	1.000
Second	1	0	
Airway leak pressure; cm H_2O	25.0(22.0-30.0)	22.0 (20.0-28.0)	0.083

Values are expressed as median (IQR) or actual number

Number of manipulations required to achieve a clear airway was same in both the groups (Four in each group). There were no statistically significant differences in the leak volume and leak fractions during controlled ventilation.

Conclusions.

The study shows that insertion times with the i-gel are significantly shorter compared to the LMA unique.

Audit of Pain Levels in the Recovery Room Post Bowel Surgery and Analysis of Selected Factors M Shaw, R Nagaraja, Dept Anaesthetics, Aberdeen Royal Infirmary

Best practice suggests that patients should not experience uncontrolled pain either upon waking or at other times in the recovery room(1). We have previously noted that patients are experiencing uncontrolled pain and that the most at risk group was found to be laparotomy(2). In this audit we set out to

establish the degree to which we are concordant with best practice for patients undergoing bowel surgery. We also investigate whether there is a difference between laparoscopic or open surgery and between different intra operative analgesic regimes.

Methods

We developed a proforma to collect data on (a) patient demographics and surgery, (b) intra operative analgesia and (c) pain scores and analgesia received in the recovery room. Parts (a) and (b) were completed by the anaesthetist or ourselves and part (c) was completed by recovery staff. Pain scores were assessed using verbal questioning on a scale from 0-4 with 2 representing moderate. Data was collected on 102 patients undergoing bowel surgery between May and December 2008. 7 sets of data were not analysed due to being incomplete. We excluded patients who could not be pain scored post op and those whose surgery extended beyond 8 hours.

Results

We found that 32 (34%) patients experienced ≥moderate pain on waking and 36 (38%) at 30 minutes after waking. For those having open surgery (n=64), ≥moderate pain was experienced in 24 (37.5%) on waking and 25 (39%) at 30 minutes. By comparison, of those having laparoscopic surgery (n=31), 8 (26%) had ≥moderate pain on waking and 11 (35%) at 30 minutes. For those having epidural (n= 22), ≥moderate pain was experienced in 8 (36%) on waking and 6 (27%) at 30 minutes compared to those without (n=73): 24 (33%) on waking and 30 (41%) at 30 minutes.

Conclusions

We found that practice is not concordant with standards of analgesia. Laparoscopic surgery seems to show a reduced incidence of uncontrolled pain. Epidural shows worse pain scores on waking but improved pain scores at 30 minutes. There was no noteworthy difference between other analgesic regimens. We will raise awareness of these findings in our department and assess resultant change by re-audit.

References

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2) Moore JN, Pain management in the recovery room. Aberdeen Royal Infirmary, April 2008.

A Cool Response to NICE Guidelines on Peri-operative Warming Dr A Vinjirayer, Dr P Jefferson, DGRI, Dumfries

Peri-operative hypothermia, defined as a core temperature of less than 36°C peri-operatively, can lead to a number of adverse consequences. The National Institute of Clinical Excellence (NICE) has published guidelines (April 2008) [1] regarding its management. We conducted an audit between 1 Dec 2008 and 31 Jan 2009 to determine compliance with the following guidelines:

Induction of anaesthesia should not begin until patient's temperature is above 36°C.

Intravenous fluids (500ml or more) should be warmed to 37°.

Anaesthetics lasting> 30 minutes should use patient-warmers intra-operatively.

Results

	Day Cases:		In-patients:		Totals	
	Forced Air Warmer	Fluid warmer	Forced Air Warmer	Fluid Warmer	Forced Air Warmer	Fluid Warmer
Compliant	36 (49%)	49 (67%)	206 (91%)	238 (72%)	127 (33%)	287 (74%)
Numbers	73		303		386	

In our audit, adherence to NICE guidelines did not approach 100%: 6 day-cases and 8 in-patients did not have a temperature of at least 36°C before induction of anaesthesia.

Conclusions

We were able to show that precise adherence to the NICE guidelines on preventing hypothermia has not yet been achieved in our hospital especially in our day case unit, although NICE guidelines do not make any distinctions between in-patients and day-cases. Various explanations include lack of awareness, insufficient equipment or poor appreciation of the impact of hypothermia on patient outcome. Poor day case unit compliance is likely related to cases lasting longer than anticipated As equipment availability has been assured, a focussed education campaign can have maximum impact on future compliance.

References

NICE. Perioperative hypothermia (inadvertent): the management of inadvertent perioperative hypothermia in adults. NICE Clinical Guideline 29.

Trainee Supervision for out of hours Emergency Caesarean Section in the Morbidly Obese. C. Eckersley, P. Stone, J. Reid. Anaesthetic Dept, Queen Mothers Hospital, Glasgow

The latest CEMACH report highlighted the importance of morbid obesity in the morbidity and mortality of pregnant women and recommended that these women should not be anaesthetised by trainees without direct supervision.. We aimed to investigate our unit's current practice regarding trainee supervision at CS in the morbidly obese and identify any anaesthetic complications in those patients who delivered out of hours.

Method:

Patients delivering during normal working hours were assumed to have immediate supervision from the duty consultant. We included patients with BMI ≥ 39.5 who underwent CS outwith these hours in the period 30/7/02 to 31/3/08. We reviewed these patients' casenotes and the theatre logbook and noted evidence of senior supervision, mode of anaesthesia and the incidence of difficulties encountered.

Results:

Total number of CS was 5151, 4480 (87%) had BMI data available. Of these 126 (3%) had BMI ≥ 39.5 and 44 (37%) underwent CS out of hours. Senior supervision was documented in 12/44 patients (27%). Casenotes were available for 39/44. Table 1 overleaf.

Conclusion

We currently do not meet the CEMACH recommendations with only 12/44 (27%) of these patients having documented direct supervision. We found a high incidence of complications regarding anaesthesia and these findings back up the need to comply with the CEMACH recommendations.

Anaesthetic Interventions (45 in 39 patients)	Complications
Epidural n = 18	8/18 (44%) difficulty siting (≥ 3 attempts or requiring a long needle)
Spinal n = 17	6/17 (35%) difficulty siting
CSE n = 4	2/4 (50%) difficulty siting 2/4 (50%) failed spinal component
GA n = 6 2 de novo 2 epid. conversion/breakthrough pain 2 epid. conversion/ massive PPH	2/6 (33%) difficult intubation (Gr IIb or III larynx) nil 2/2 (100%) difficult intubation nil

Reference
1. The Confidential Enquiry into Maternal and Child Health (CEMACH). Saving Mothers Lives: reviewing maternal deaths to make motherhood safer - 2003-2005. December 2007.

Training and Experience in Central Venous Cannulation amongst Acute Speciality Trainees. N Johnstone, I Raju, ST Anaesthesia, Monklands DGH, Lanarkshire, ST Anaesthesia, Glasgow Royal Inf.

Central venous catheters (CVC) are inserted in a wide range of clinical settings by a diverse range of clinicians. NICE guidelines in 2002 recommend that anyone who inserts CVCs using 2-D ultrasound should have appropriate training and be competent to use the technique. The aim of this audit was to assess the current level of training and experience amongst acute speciality trainees in insertion of CVCs using 2-D ultrasound guidance and anatomical landmarks. Audit forms were distributed to trainees at Monklands DGH between September to November 2008. Data collected was based on self-evaluation by the trainees on previous experience, training and competency in CVC insertion techniques.

Results

42 questionnaires were returned. 40.5% had received training in using anatomical landmarks and 40.5% in using the 2-D ultrasound technique. 71.4% stated they would need training using 2-D ultrasound and 62.7% using anatomical landmarks. 10.3% and11.9% felt competent to insert CVCs independently using 2-D ultrasound and anatomical landmarks respectively. Only 14.2% had been 'signed off' as being competent to insert CVCs.

Discussion

Although CVC insertion should be a core skill amongst acute speciality trainees, the reality is that the vast majority of trainees are not competent in this skill. The results show that most trainees still require training or supervision. More importantly, the insertion of CVCs by untrained and unsupervised trainees can greatly increase patient complications. Our results strongly support the need for proper training and assessment of competency for trainees who undertake CVC insertions.

Audit of the management of Central Venous Catheters in main theatres at Aberdeen Royal Infirmary. J MacBrayne, K Ferguson, Dept Anaesthesia, ARI

Aim

Assess the number of lumens and type of connection devices used on Central Venous Catheters (CVCs) inserted in main theatres at Aberdeen Royal Infirmary. Findings then compared with the guidelines for the prevention of Catheter Related Blood Stream Infections (CR-BSI). Anaesthetists surveyed to assess knowledge of the existence of guidelines on CVC management and their own practices.

Method

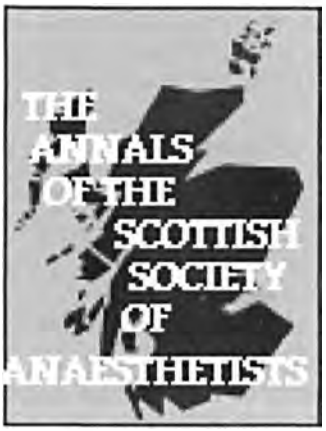
CVC lines inserted in theatre over a three week period surveyed in recovery and data collated. Anaesthetists were then given an anonymous questionnaire to fill in.

Results

25/28 CVCs were triple lumen. 68% were used only for CVP monitoring in recovery. No CVCs analysed had more than two lumens in use. 50% of anaesthetists said they would use single lumen CVCs if clinically appropriate, and of the remaining 50%, 11/15 said they would use double lumen CVCs. In 78% of cases Three Way Taps (TWTs) were used as the only connection device. Bionectors were used in 11% and in a further 11% both of the above used. 17/30 (57%) Anaesthetists stated that they used both Bionectors and TWTs with 37% using TWTs alone and only 6% using Bionectors alone. 10/30 anaesthetists aware of the existence of NHS Grampian guidelines with only 3 knowing how to access them.

Discussion

Guidelines on CR-BSI not being adhered to and local ones difficult to access. Increased availability of single and double lumen CVCs would increase their use. Education on the benefits of luer lock connectors and knowledge of their availability should increase use. Re-audit necessary.



What? Who? Where? When?

- News from the Regions.....

Many thanks to those who have been willing to contribute.

Aberdeen - Donald MacLeod
Like nearly all departments we are struggling with adverse consequences on staffing and service resulting from the rigidity of MMC and also from EWTD. Our Registrars provide valuable clinical work.

Other developments are more advantageous. A formal anaesthetic pre-assessment clinic has started with 5 consultant sessions per week in ARI and 1 in AMH. Building work has commenced on our new seven storey emergency care centre (ECC) which should open in 2011 on the Foresterhill site at a cost of about £110M. It was hoped that the ECC would incorporate the National Hyperbaric Centre. More on this will be written next year. In theatres the home-grown computerised management system will be replaced during 2010 by the GE Opera system providing lots of work and headaches for our Theatres lead consultant and IT whizz – Brian Stickle.

Aberdeen University and NHS Grampian jointly funded (along with a hefty amount of charitable contributions) our new teaching and learning centre also on the Foresterhill site and now named the Suttie Centre with lecture hall, clinical skills centre, anatomy dissection rooms, many "state of the art" teaching facilities, café, conference rooms including one on the roof along with sizable balcony etc etc. A number of opening ceremonies have been held including one with Lord Winston and more are to follow. Also of note the University is one of 10 WHO sponsored medical schools (worldwide) to take part in evaluating the new WHO patient safety curriculum for medical undergraduate training.

On the staffing side Drs Lewis Walker, Paul Bourke, Anand Kamat, and Gwen Johnston have been appointed to consultant posts in Aberdeen, congratulations all.

From our senior registrar pool, Peter Faber has been appointed to a consultant post at Papworth, David Seath and Michaela Salvadore are moving to Australia, Emma Whyte to Edinburgh paediatric retrieval team, Mandar Joshi to a chronic pain fellow post also in Edinburgh.
A few consultants are also on the move - Josh Brombacher has moved to Denmark, Roopa Devanahalli is moving to London, Bryce Randalls on tour of duty to Afganistan, Anton van Niekerk is returning to Australia, and Brian Cuthbertson has been appointed Professor and Chief of Critical Care at University of Toronto. They leave with our good wishes especially Brian who was in the department for 18 years. Also leaving after over 30 years is John Mackenzie who is retiring following a period of ill health. John is a past Hon Sec and a past President of the Scottish Society of Anaesthetists. Most members will know John well and will be pleased to hear that his health is slowly improving.

Also retiring after some 30 years mostly in Aberdeen are George Smith and Abdul Sheikh.

As Andrea noted last year NESSA continues to thrive and this year celebrates its 50th anniversary. David Noble takes over as President of the society for 2009-10.

Ayr Hospital - Ruth Jackson
The department at Ayr has continued to change, this year we welcomed Dr Nabil Alaouabda to our consultant ranks after the departure of our colleague Jillian Hewitt-Gray to the deep south. Nabil originates from Syria and completed his training in the Republic of Ireland. Dr Venugopal, who worked in Ayrshire for over 20 years retired at the end of the year and we wish him a long and healthy retirement.

We look forward to Dr Joellene Mitchell and Dr Kenneth Kerr joining our ever expanding department in the new year- if only our office space could be expanded too, its getting rather cosy here!

Balfour Hospital Orkney - Colin Borland
2009 has been an interesting year for the Anaesthetic Department at Balfour Hospital. Our intention to recruit has changed to seeking 2 FTEs following Macolm Thompson's announcement of resignation with effect from end of February 2010. Coupled with this has come the momentum to explore a linkage or networking arrangement with the Anaesthetic Department at Dr Gray's, Elgin.

Much progress has been made with 3 Theatre nursing staff who have undertaken Nurse Anaesthetic Competencies. An achievement of which Malcolm Thompson can be justifiably proud. SN Maggie Broad has arrived from Wick and will be a valuable addition to the department while we also look forward to involving her musical (percussion) talents in the local musical scene.

Marek Wolanski and his wife Anna are expecting their third child in May. Marek has been at the forefront of development of changes in our Acute Ward provision. Balfour Hospital Female Ward exists no longer since its transformation into Minor Injuries & Receiving Areas. The former Male Ward has been rearranged for acute admissions of both sexes. Resuscitation and dedicated HDU provision is sited within these refurbished locations . In addition, recent visits to Kirkwall for Inspection Control and Ministerial Annual Review purposes have ensured a fresh coat of paint in our public areas. So the internal hospital structure is bright and fresh-looking.

Michael Dohrn and Cezar Zawal have remained the on-island Surgical Consultants while Ameir Al-Mukhtar is undertaking a sabbatical attachment in breast surgery at Foresterhill Hospital, Aberdeen.

Air ambulance transfers remain an infrequent but contentious liability. Some nursing and junior medical staff have been able to provide air ambulance escort duties this year, thereby reducing the frequency of Kingair and Eurocopter excursions by Consultant Anaesthetists.

2010 will be a year of further change and we look forward in particular to appointment of Consultant colleagues.

Borders District General, Melrose - Tom Cripps
The BGH Anaesthetic Department continues to flourish. Two of our recently appointed consultants are exercising their right to motherhood, while Jon Aldrige is to be congratulated on the birth of his second child. As this is written the expected mayhem caused by swine flu has not yet materialized although we are discovering the full impact of changes in trainees' working patterns and Hospital at Night.

News from the Far North
Caithness - John MacLeod
All change in the Far North - Two consultants leaving - Dr Kerr off to Barrow-in Furness, and Dr Leuweenberg retiring at the age of 70. Hard acts to follow. We wish them both all the best. Recruitment is always difficult to remote and rural posts. This is a situation made more difficult by the changes wrought on the consultant contract in Scotland. God bless the BMA for their support in this matter. I'm sure that new consultants will be delighted to re-negotiate their contracts after 3 months in post. In the meantime I pray for applicants to our vacant posts who have the appropriate attributes- competence, tolerance and optimism.

Crosshouse - Chris Hawksworth
This summer, Sandy Morris retired to Carnoustie, leaving behind Ayrshire's wet weather for good, or so he thought. Hopefully the recent floods in Carnoustie will prove to be a temporary phenomenon, but who knows with global warming? I hope you kept your galoshes Sandy. I well remember Sandy's encouraging first words to me as a new registrar at Crosshouse. 'Why on earth do you want to do anaesthetics?' I was relieved to discover he asked all trainees this question, not just me. Sandy's disdain for muscle relaxants was legendary and frequently presented a technical challenge for trainees. His dry, mischievous humour will be missed, especially by Stan Zimmer, who was so often the butt of it.

By the time this is published, we shall have welcomed five new consultant colleagues to the department in the last twelve months. Laura McGarrity who has an interest in obstetric anaesthesia and preoperative assessment, Shona Fraser and Kate Janossy as locums to cover Alison Campbell's maternity leave and the ever expanding theatre and weekend trauma workload, as well as Ross Simmons and Gordon Houston who have an interest in ITU.

Congratulations to Paul Kidd, Fiona Gillan and Antonio Martinazzo on their promotion to the Associate Specialist grade.

Finally, we all hope our stalwart secretary Sylvia makes a speedy recovery and is able to return to work soon. We miss her cheery smile in the mornings and her forthright opinions of surgeons who expect her to magic an anaesthetist out of thin air when they want to reinstate previously cancelled lists at a day's notice.

Dr. Gray's - George Duthie
It is with great sadness that I have to report the untimely death of Dr Colin McFarlane in November last year just as the Annals were being printed.

On Tuesday the 22nd September family, friends and colleagues of Colin gathered to pay tribute to his life and work.

He was a Consultant Anaesthetist at Dr Gray's Hospital from January 1996 until November 2008.

He played an active role in staff training and development, helping to improve the safety of patients. He took on the mammoth task of writing an Anaesthetic Assistant Competencies Training Manual. This is now known as the Gray's Manual.

On that memorable day, Dr Heather Hosie, Chair of the Scottish Multi-professional Anaesthetic Assistants Development Group, travelled to Elgin to pay a personal tribute to the much valued contribution made by Colin and to give out training awards.

She said Colin was a man very committed to improve the lot of anaesthetic assistants across Scotland. It is because of Colin's work and his manual that Scotland now has a nationally recognised qualification. Dr Gray's is brilliant and very special as it is the only hospital in Scotland, as of now, where all the anaesthetic assistants have a nationally recognised qualification, thanks to Colin.

Also that day, Dr George Duthie, Consultant Anaesthetist at Dr Gray's, spoke warmly of Dr McFarlane's achievements and dedicated a bench, in commemoration of his outstanding contribution to the care of patients at Dr Gray's. It sits outside the old entrance to Dr Gray's Hospital facing the small rose garden area. There is a simple message that Colin is "greatly missed". Never was a truer word said.

Greetings from the South West
Dumfries & Galloway and Stranraer - Willis Peel
Lost of comings and goings this year. Many thanks to Dr Pavel Motka for his hard work who leaves us because of family commitments. Unfortunately that leaves us with two vacant specialty doctor posts.

Ron is still helping us in his retirement, but Hugh has finally left us for the golf course. John Carruthers has returned to help us for a while. Thank you.

Ranald and Hamish hold the fort, out west, in Stranraer. We, as ever, encourage the trainees to publish anything that moves (many posters and several letters), and we continue involvement in 2 National studies (BALTI 2 and GENISIS) and one international audit (SAFE TRIPS).

Fife - Gordon Smith
Life in NHS Fife during 2009 has been relatively uneventful and though there have been some areas of progress the same old problems that have dogged us for many years remain unresolved.

First there is some good news. Our new hospital at Kirkcaldy, which will house all acute services in Fife including obstetrics, is progressing well. As I write this I am looking at a large steel structure which now towers over the site and is starting to resemble the shape of the new building as envisaged in the planning process, though it seems a lot larger than I had imagined. Of course there is a lot to do, but we are on target to start commissioning in autumn 2011 with, hopefully, the closure of Forth Park hospital and the much awaited move of obstetric services to our main hospital site in spring 2012 followed quickly by the rest of the acute surgical services. This will allow us to consolidate both our senior and junior anaesthetic rotas on to one site instead of three. Queen Margaret hospital in Dunfermline will remain as a day surgery hospital as well as continuing to function as a diagnostic centre with a full range of out-patient services.

An area of more concern is how we manage in the two years left before completion of our new facility. Our junior rotas have become more and more stretched as the MMC process starts to bite. We already have numerous gaps in the rota being covered by locums or by consultants doing "resident on call". This will only get worse as we still have to absorb another 30% reduction in trainees by 2012. As mentioned in last year's report the workload of consultant staff continues to increase particularly at night and despite generous remuneration it remains difficult or impractical to get "volunteers" to fill the gaps, which have to be done on top of our normal weekly workload. It is no consolation that other specialities have been hit even harder, though I don't envy the task of attempting to staff emergency medicine in the future. We do now have three trained Physician Assistants-Anaesthesia with a further two in training. These individuals will to some extent carry out tasks previously done by trainees. However, funding of these posts remains a real problem though we should, in theory, get something from the trainee budget. As I have said before, they are not the full answer to our problems, particularly as they cannot cover overnight on call without direct supervision, but they have a valuable contribution to make in some areas.

On the staffing front there have been few changes this

year. Mick Dockery left in August for a 12 month sabbatical in Southern Ireland. At present Jonathan Cheung, who completed his CCT this year as part of the South East of Scotland rotation, is acting as locum consultant. We also have two further locums from Edinburgh until the end of the year - Kenneth Kerr, who has just been appointed to a substantive post in Ayr and Richard Burnett who is still looking for a permanent position. They have both given us excellent service and I wish them well in their future careers. Despite our ever increasing activity, the outlook for appointing new consultants to maintain our activity and reach the targets set by the Scottish Health Department remains bleak with the indications that 2010 will see even tougher financial constraints.

In conclusion I would like to thank everyone in the department for their hard work over the year. It is only by pulling together in these tough times that we can continue to maintain the excellent service that we offer to our patients in Fife.

Forth Valley - Crawford Reid
There is not too much to report from Forth Valley.We remain in limbo awaiting the move to the new Acute hospital in Larbert. Falkirk activity is projected to move in July 2010, with Stirling services moving approximately one year later. We will see.

Congratulations to Drs McIlveney, Richards, Hawkins, Raj, Hawthorne and Tippur on the birth of their children, and to Adam Savage on his recent marriage.

We now have two trained Physician Assistants in Anaesthesia, Ali Fiddes, and Jillian Brand. On the exam front, congratulations to Suzanne Boyle and Chris Hawthorne for gaining fellowship, and to Oona Tanner and Katrina Bramley for passing the first part exam. We now have our own TV star, with the above mentioned Suzanne Boyle the real SuBo, starring in Everest ER. She now signs CD books not autograph books!

At departmental level, Chris Cairns has replaced Crawford Reid as Clinical Lead. Judith Wilson will take over as Scottish Society of Anaesthetists regional representative in April.

Glasgow Royal Infirmary - Geraldine Gallacher
Without doubt the most important and positive event in the last year for the Anaesthetic Department at Glasgow Royal Infirmary has been the return of our much missed Office Manager, Mrs Liz MacKay, from the dangerous wilds of Southern Orthopaedia. Our universe has slowly settled back into its rightful order and Ken James looks ten years younger. The Department continues to cope well with the ever changing demands from those in charge of navigating our course through the contradictory and choppy waters of Waiting Lists and Government Targets.

Other than that, the very pretty Stobhill Ambulatory Care Hospital has opened. The hospital managers are currently budgeting carefully for a matter transporter someone saw on Star Trek. The ability to beam staff up and down Springburn Road in nanoseconds will be an important part of future manpower planning to cover both sites. It would perhaps not be entirely accurate to say that the redisorganisation, I mean, redistribution of work has been entirely smooth but things are settling and improving week by week. The retention of a sense of humour has been important in maintaining sanity.

Our still shiny ITU continues to provide a sterling service, particularly to all those pancreatically challenged. The unit is currently on course to expand to allow the Stobhill ITU move down to the GRI site as well as providing a desperately needed few more High Dependency Beds. Building for this has been commenced and the plan is for all to be ready in October 2010.

Not to be outdone, the Princess Royal's contribution to the ongoing expansion of the populace continues apace. The forthcoming closure of the Queen Mother's Hospital will increase deliveries to well over 6000, with a considerable number of these being high risk pregnancies. How to staff this sensibly is an ongoing headache but Alison Kilpatrick takes paracetamol and doesn't complain. In addition our gynaecology service has moved to a brand new theatre complex in the Princess Royal Building.

Our own GRI anaesthetic contribution to the expansion of the populace also continues in respectable fashion, with new arrivals for the du Plessis, McCormack, Litchfield, McKinnon, Maybin, Riddell, Griffith and Pow households. The anaesthetic plan for world domination by repopulation continues but the flowers budget is sadly overspent.

In terms of staffing, this has been a fairly bounteous year for Consultant appointments. We have welcomed Dr Tara Quasim, Dr John Dolan and Dr Alan MacFarlane to our ranks with delight, and hot off the press have just appointed Dr Indy Raju who will take up his post in March. We look forward to working with them.

The Institute for Neurological Sciences - Linda Stewart
The Institute has established itself as a regional Head and Neck Centre with the addition of OMFS and ENT to the specialities on site. Dr Cunningham runs regular

Airway Training Days and an associated website – gaslab.co.uk. We anticipate the all major head and neck cancer work for the West of Scotland will be centralised at the INS and in preparation for this we will be appointing to a new consultant post early next year.

Dr O'Hare has demitted office following 3 successful years as Lead Clinician for Neuroanaesthesia, with Dr Werstler picking up the baton. To fill his new found "free time" Dr O'Hare has been appointed as examiner for the second part FRCA examination.

In ITU we are working closely with our medical physics colleagues measuring brain impedence in an attempt to measure ICP non-invasively. Results will be published shortly. We have also been contributing to the AVERT-IT project which is developing a neural network to predict secondary insults before they happen.

Dr Stewart has recently been appointed as Clinical Lead for Donation.

Glasgow Western & Gartnavel - Colin Runcie
Little has changed here at Gartnavel in the last year. Tom McCubbin retired at the end of 2009 after many years of sterling service and we wish him well in his retirement. Craig Urquhart has just been appointed in his place.Tom will be followed by a string of retirements in 2010 and we wait anxiously to see if the money to recruit replacements is forthcoming. In February I became Lead Clinician in the west sector and was replaced as Chairman by Neil O'Donnell – amid scenes of such excitement that incontinence was only narrowly avoided on several occasions. More importantly, a central element of our whole service was secured when Margaret Dickson was upgraded from our secretary to Office Manager, a change which only just prevented a catastrophic move to another department.

Many of our trainees have moved on to greater things. Sarah Hivey and Cathie Wallace remain on a paediatric trajectory post-CCT – the former in Yorkhill and the latter (perhaps permanently) in Australia. More recently, Margaret Owen took up a consultant post with an interest in Pain management in south Glasgow, while David Blacoe, Gordon Peters and Shona Fraser were all successful at the recent Lanarkshire consultant anaesthetist bonanza. The all-consuming wave that is/was MMC crashed over the department in August and has been receding ever since. The projections for trainee shortfalls across Glasgow and Clyde by June and July 2010 are truly haemorrhoid-inducing.

The Acute Services Review continues to cause many changes in the west sector. The Queen Mothers Hospital has now closed; an institution of international repute with a proud history. Similarly Gartnavel has become the ophthalmology "hub" for Glasgow and Clyde (with somewhat patchy results) and Glasgow vascular surgery will centralise in the Western later in 2010 for a few years. 2 new theatres are being built in the Gartnavel main theatre suite and will be followed by a retro-fitted same day admissions unit (SDAU). Alternative names and abbreviations are being sought – admit on the same day unit (ASDU?) – and so on.

In the midst of change, the positive, cohesive and highly functional unit that is our department looks to the future with humour and enthusiasm.

Hairmyres - Grant Haldane
2008/9 has been a relatively quiet year in Hairmyres. Dr Reynolds had a new baby boy & has returned to work after maternity leave for a rest!! That makes two members of the department daft enough to have 4 children & has lead to extensive discussions on the merits of SUV vs people carrier & where to lay your hands on better birth control!! Headaches also abound on how to fit in all parental leave & school holiday requests – the down side of a young department!!

From a clinical perspective Hairmyres has now become a regional centre for Primary Coronary Intervention & the service was officially opened by Princess Anne, the Princess Royal in February 2009. Needless to say, no funding was identified (or considered necessary) for anaesthetic input to the cath lab but as we are now frequent visitors, new relationships are being formed & another satellite anaesthetic site/service has been created.

The department welcomed Dr Swapna Ghambir during 2009 & currently is recruiting for additional Consultant staff to meet the increasing demands of our ever expanding workload.

We continue to enjoy the challenges of providing anaesthetic services in a District General Hospital but are acutely aware of the shortfall in experience of many of our trainees leading to a significant on call burden – thank heavens for the new consultant contract & protected SPA time for admin, appraisal, teaching etc. At least they can't take that away from us, surely that's as solid as our pension arrangements……What's that!?

Inverclyde
Life goes on doon the water, an outpost of the behemoth that is Greater Glasgow and Clyde Health Board. Like many departments we are struggling with the competing pressures of the working time directive, reducing trainee numbers and ensuring quality training all within a need to maintain a stretched service. Training vs Service.

who will win out, time will tell us.

In terms of staff, we have had a change of trainees, with Monica Doshi, Jocelyn Erskine joining us, Jill Selfridge returning, William Scott and Juliana Sisk staying on. They are having to adjust, as are we, to the new hours requirements and mostly keeping a cheery face getting on with it despite the EWTD.. Clara Jacks and Ben Lartey remain here and are weighing up the options of the new specialty doctor contract, slowly moves the machinery of HR, maybe sorted by next year.

We have had some illness this year, our long time and long suffering secretary has been off since August although she is on the mend and hopefully will be back next year. You only realise quite how vital a job it is once you have no secretary, she is hugely missed and we hope she returns soon.

The ageing consultant body, mine included, is creaking under the strain of reduced cover at night and a definite increase in work after the witching hour, it takes longer to recover these days. Another horlicks please, dear... Martin Schwab who joined us over a year ago, has settled in and is currently cycling down the coast in India as I write; I sincerely hope he returns without incident!

Artur Pryn continues to makes us green with envy of yet another diving holiday in the idyllic spots of the world, Maldives, Seychelles... Bob Campbell is still recalculating the effects of the credit crisis on his multiple skiing holidays this winter, 3 or 4, it isn't an easy choice. Fiona Munro has returned from a sailing holiday in the Med having discovered a talent for triathlon, 1st woman (we have no evidence of the numbers of women). Lew-Chin Chee is gaily skipping along having handed over the weighty documents of College Tutor to Manfred Staber who skips no longer. Duncan Thomson finally stopped going on about his wife's increasingly expensive plan for the kitchen, now it's the bl**dy ROTA. Grant Tong after another lengthy cycle in the Highlands was heard to say never again, shades of Steve Redgrave I suspect, back again next year and, finally, John Myles has embraced technology- he owns a mobile phone, watch out, he will be on Twitter next.

Hopefully by the time this goes out the dire predictions of swine flu will have been overblown, if not we are all in for a rough time

And finally, to combat climate change, a series of wind turbines have been put on the roof, one directly above our department. We know this because when installed at the weekend, it rained and the office was flooded. We all await the first storm when the roof may just peel off leaving us with a lovely open aspect and lots of fresh air. Still we all have to make sacrifices in the fight against global warming, now Manfred about those helicopter flights....

From our cycling correspondent, Lance De Boil

Monklands Hospital - Roddy Chapman
2009 has been another year of stability for Anaesthetics at Monklands after the uncertainty that had surrounded the future of the hospital two years ago. Mike Inglis was the only retiral of 2009. Mike made an immense contribution to the clinical service during his time at Monklands; some of this included the setting up of the acute pain service and as an Intensive care specialist. We all wish Mike a long, happy and healthy retiral.

Mike's retiral was marked by a well attended dinner at Abode Hotel, Glasgow, at which Mike spoke about his time at Monklands. He spoke of how at one time the Department at Monklands was almost on its knees due to a lack of consultants; this is a contrast to present times. At consultant level we have welcomed two new consultants: Marion MacKinnon and Francois Taljard. Following recent interviews we have also appointed another 2 consultants; one post being Mike's replacement and the other a new post. Both of these jobs are on 9+1 contracts which has caused concern amongst us. Lorna Taljard was appointed to a Staff Grade post. Two of our Staff Grades, Andy Ody and Emil Hinov have been re-graded to Associate Specialists

The Intensive care unit continues to be a hive of activity and our lead Intensivist, Sanjiv Chohan, is to be commended on being appointed a Fellow of the Scottish Patient Safety Programme. The ITU is currently reporting on all of the SPSP measures. Jim Ruddy is also due credit for securing funding for a number of ITU based research projects. The appointment of Marion MacKinnon has taken us up to 6 Intensive Care Specialists. We now have a total of 3 nurses training as Advanced Practitioners in Critical Care in our ICU.

August saw another group of trainees arrive and we are delighted with our current group of trainees. We also took on a second group of 2 trainee Physicians Assistants in Anaesthesia.

The coming 12 months looks likely present a number of challenges, not least because of the developing financial situation and the recent appointment of consultants to 9:1 posts.

Tales from Tayside – The Ninewells News - Fiona Cameron
We have had major managerial restructuring in Tayside this year. We now have three very large Directorates.

Anaesthesia and Critical Care is now tucked into bed with Surgery. Congratulations to John Colvin for his appointment as Associate Medical Director for the Surgical Directorate. We wonder how long it will take for the surgeons to notice that an anaesthetist is managing them. As with all major changes we wait with baited breath to see how this will affect our daily working lives. Iain Levack steps down as Clinical Director and we thank him for his years of service to the Critical Care Directorate.

We welcome Professor Tim Hales as our new Professor of Anaesthesia from Washington D.C. It will be interesting to work with a non physician and we are looking forward to working with him to develop the Academic Department. If the appearance and facilities of the new academic offices and labs are anything to go by we look forward to exciting research opportunities. Congratulations to Graeme McLeod who was appointed as Reader in Anaesthesia.

Pamela Johnston has taken over the reins of the Obstetric Anaesthesia group from Willie McClymont whose achievements in bringing the service to its current strength are notable. Bill Macrae had a successful retirement meeting as part of the Third St Andrews Pain Symposium which was organised by Phil Lacoux. It was well attended and received. Bill continues to work until Gail Gillespie returns from maternity leave. Sally Crofts has taken over the mantle from John Colvin as Clinical Lead for Intensive Care. Fiona Cameron has taken over as College Tutor from Fergus Millar.

Three Tayside trainees have secured Consultant posts this year. Congratulations to Anand Kamat who has gone to Aberdeen, Rafik Arsany who is now in Barrow on Furness and Ross Simmons who ventures to the West in Crosshouse. We wish them all well. Our department has expanded again this year. We welcome new Consultants Orla Hayes and Calum Grant.

Our trainees as usual are jetting round the globe. Corina Lee is spending a year in Toronto and Steph Sim is in New Zealand. Stephen Humble has stayed closer to home this year and has started a research post with the Wellcome Trust. Christina Beecroft has returned from Oz and is now working in Tayside as a locum consultant.

Catriona Connolly, Lyn Walton and Grant Rodney travelled to Malawi again as part of a Scotland wide group to provide teaching to local medical and nursing staff.

So far we have survived the swine flu pandemic without having to resort to the contingency plans. The Netcare contract for the SRTC at Stracathro has reached its end and at the time of writing we are not aware of how this will affect us.

It has been a busy year for us and I suspect that whatever we do next year it will be with a reduced budget. However I am sure we will rise to the challenge.

Royal Alexandra Hospital, Paisley - Jackie Orr
Alastair Cameron retired in June 2009 after 26 years as a consultant in the Vale of Leven District General Hospital and latterly also the RAH. The occasion was celebrated by a dinner on Loch Lomond side. We made 2 new consultant appointments this year, Richard Pryce and Brian Digby – both young Intensive Care specialists. Richard also has an interest in echocardiography.

The Orthopaedic workload and targets still dominate our theatre activity. This summer one of their theatres was closed so that a new laminar flow system could be fitted. As much elective work as possible was scheduled to be done by the RAH team at a south Glasgow hospital resulting in massive disruption. We are used to orthopaedic lists moving from theatre to theatre and occupying half the theatre space available, but moving between hospitals was something else. We hope we have been able to dissuade management from repeating this.

So far we have continued to fill our trainee posts with ACCS and specialty doctors who rotate at regular intervals – all that is except Tim Geary who seemed to spend most of his 5 years in anaesthesia at the RAH. He had to organise a year out in New Zealand to break the cycle!

We look forward to 2010 with our usual enthusiasm.

Raigmore - Ian Johnston
It is with some relief that I write this report (my last as regional rep.) as the Winter Scientific Meeting has passed, was deemed to be a great success by those who attended and, hopefully, the Society is still solvent!! I will, however, leave that report to another.

2009 has been a strange year for Inverness. It has been a great honour for us to have John May as the Society's President and I had the pleasure of attending his presidential address in Peebles. Little did we realise as the event approached that the signs of strain which he masterfully disguised were in fact unrelated to the stress of the position but due to genuine ill-health. However, with the help of a laparoscope, a few staples and the loss of a couple of pounds he was back to his usual self and timed his recovery to perfection in order to host the November meeting.

Unfortunately, John felt that as a result of it all he was unable to give his full commitment to his role as Clini-

cal Director so reluctantly stood down from the position. Thankfully, Jonathan Whiteside agreed at short notice, to step into the breach on a temporary basis, and he has certainly stamped his authority on the directorate in such a short time !

2010 is likely to be stranger. Both Richard Johnston and Isobel Mackenzie, the two longest serving members of the department have given notice of their intention to retire early in the New Year, and are likely to be followed by John himself. They will be a tremendous loss and will be sorely missed by staff members, patients and, in particular, the anaesthetic trainees for their demonstrations of widely varying anaesthetic techniques but primarily for their clinical expertise and common caring attitudes. It is difficult to comprehend in the current department of 36 that on their appointments, the trio comprised more than 50% of the consultant establishment! Their departures will leave yours truly as the oldest member! How can one so young.....?

On that point, in last year's report I mentioned Ken Barker's role as lead in the Ambulatory Care Unit Steering Group and his one time full head of dark hair when he agreed to take it on. It would now appear that he will be bald, toothless and possibly incontinent by the time the unit actually materialises, the funding having been "delayed" yet again (perhaps permanently on this occasion!). This bodes well for the approaching 18 week RTT! In a similar vein, one can only admire the planned solution to the hospital's ever increasing bed problem which regularly delays the discharge of patients from ITU, and the admission of scheduled and emergency cases alike – cut the number of in-patient beds even further!! Ken has successfully coaxed... steered... guided us (including our surgical colleagues) through the SPSP surgical checklist for which he must be congratulated and he is shortly to take on the role of Safety Net Master – a genuine masochist!

On a happier note we are delighted to welcome to the department, Morag Ritchie, who joins CarolAnn Crawford in the office and wish the two of them every success in organising 36 demanding eccentrics!

Congratulations are also due to Sandy Hunter and Clare on the birth of Andrew, a 'wee bruv' to Cameron and to Ross and Noreen on the impending addition to the Clarke family.

Royal Infirmary, Edinburgh - Ian Armstrong

The sudden and unexpected death of Pavel Polovinkine has been a cause of great sadness to us all. Pavel came to Scotland in 1996 as a visiting fellow through the auspices of the Scottish Society. I had great pleasure in publishing an open and very sincere letter from him in the Annals of the following year in which he expressed his appreciation to members of the Society and also his enthusiasm for the country and people of Scotland. Shortly thereafter he joined us here in South East Scotland as a SHO trainee in Anaesthesia. It is a reflection of the character of Pavel that he left a very senior position in Anaesthesia in St Petersburg and his homeland, which was in turmoil at that time, to start again at the bottom of the training ladder in a foreign country with only the basic grasp of the language. Being Pavel however he progressed rapidly. In my role as a training supervisor at that time there was more than one occasion I was grateful for his advice on anaesthetic management! He was a remarkable man, a true friend to many of us and most importantly a husband to Carole and a father who is missed by all.

John McClure was chair of the South East Scotland School of Anaesthesia at the time Pavel joined us. Since then much bupivacaine has flowed under the bridge (round the catheter, into the CSF and places best not mentioned) and John has been responsible for more than his fair share, as he takes retirement this year. His sense of humour and wise counsel will be missed around the department, and beyond. Whether it is a reflection of his Irish roots or seepage of the Scots character into his very fabric, he organised his own night out in a church hall and what's more, made it a BYOB night! We wish both John and Patricia well for the future and remind John that Hearts need all the support they can get.

There will be many who will remember with nostalgia the days when teaching the art and science of anaesthesia used to happen in the operating theatre. David Littlewood was an enthusiast for this but sensing the march of MMC, EWTD and a following wind, upt anchor and set sail for retirement too. His sat nav though, is clearly not up to the job, as we seem to see him around the operating theatres more often than before, albeit in a non-linear random distribution. He has a long way to got to match some previous members of the department for number of retirements and his dry wit is still very much appreciated. More importantly the supply of fresh veg from his allotment is ensured.

Meanwhile, in the words of the song 'bring on the girls'. We are delighted to welcome to the department as consultants Kate Carey, Stella McLaughlin, Charlotte Scott and Arlene Wise. For reasons best known to themselves, both Charlotte and Arlene have a major interest in obstetrics, but there you go. Kate and Stella on the otherhand have a major interest in anaesthesia, a rare attribute these days.

David Brown as clinical director has been overseeing the commissioning of a new laparoscopic theatre with

more monitors than NASA space control. He strongly denies allegations of any involvement in the change of use of one of the anaesthetic pendants. The 'natural light' installations give the place a bizarre blue tinge which apparently stops us all getting SAD and the placement of offerings under the anaesthetic machine to ensure conduct of good anaesthesia is proving a useful source of income to Dr David Watson as clinical lead in these days of financial constraint!

On the critical care side we welcome Dr.Mike Gillies as a full time critical care consultant. After a short time as consultant in St.Thomas's in London, Mike has returned to his native Scotland albeit at the other end of the M8. Brian Cook continues as clinical director and has his hands full drawing up enumerable plans. We can only hope he is complying with the appropriate hand washing policy if they need to be put into action. He is however, strongly supportive of research to develop a combined vaccine for avian and swine flu on the off chance that pigs might fly.

This year's winner of 'I'm a trainee, get me out of here' is Fiona Barron who has taken time out to work in Melbourne and is watching the odds at the Melbourne races to fund her return shortly. The judges at PMETB are currently looking with despair at a long list of candidates who wish to follow next year, while Donald Johnston has further upset their calculations by taking up a full time post in Western Australia. We wish him and his family well.

As for the rest of us, we continue to do what we do and not at all badly at that, even if we are the only ones who seem to think so.

RHSC, Edinburgh - Alistair Baxter
A relatively quiet year at RHSCE, after all our appointments last year. Our main focus has been on the planning for our new hospital. Detailed drawings but nothing concrete yet. Will it happen this decade? We certainly hope so. One arrival that was delivered on time was that of Hamish, Emma Dickson's son. Well done to both Emma and Rory.

With Emma on Maternity leave, and Eddie Doyle's increasing managerial commitment, we have been able to welcome Karen McGrath from Belfast, as a locum consultant. In addition, we have continued our programme of "in-reach" with consultant colleagues from Fife visiting us to cover lists and increase their experience in paediatric anaesthesia. This year we have welcomed Drs Steve Gilbert, Katie Hunter, Kay Dell and Gav Simpson to our theatres.

This exciting development has built on the successful exchange with Tayside, and hopefully will continue to allow us to strengthen the links between departments on the East Coast, and improve patient care.

Shetland - Catriona Barr
Winter 2008/2009 was a busy time for the three consultant anesthetists, Catriona Barr, Brodyn Poulton and Jacek Swierczewski in Shetland. Viking Fire festivals enlivened our social lives while at work an unprecedented number of babies with bronchiolitis needed urgent stabilisation and retrieval.

2009 saw another beautiful summer in Shetland and also a visit from our first remote and rural anaesthetic trainee Dan Baraclough. Dan spent several weeks with us and gave us the (almost forgotten) experience of occasionally having accompanied lists.

Dan contributed greatly to the clinical, educational and social life of the anaesthetic department here and also did a long stint acting up as a consultant. We hope this did not put him off remote and rural anaesthesia forever. One of his trips out involved taking the NES mobile skills unit up to the island of Yell for a day of simulator training. He helped local trainers use Sim-man and Simbaby to provide realistic clinical scenarios for local emergency service workers. He also joined us in training more than 100 people while the 'bus' was in Lerwick and attending the PICU outreach study days on the bus along with the entire anaesthetic department.

Other exciting news: Jacek is engaged and marrying his partner Dorota next June: volunteers, please, for a short locum in Shetland on the 26th of June 2010 so that Brodyn and I can help them celebrate in true Shetland/Polish style.

We have been very happy to welcome Piotr Mikolajczak a fellow countryman of Jacek and Dorota's, to a substantive Surgical consultant post in Shetland. Piotr has joined Gordon McFarlane and several regular locum surgeons in ensuring that this has been a much more settled year for the surgical services here.

On a more serious note we have (I think) survived yet another QIS assessment process. The impact on small departments, of completing this sort of assessment, is immense and I'm sure many of you will agree that we are all in danger of sinking beneath the paperwork associated with QIS, SPSA, H1N1, anaesthetic nurse competencies, nurse prescribing, revalidation and the like. Clinical work is, as always, a blessed relief.

St John's University Hospital - Duncan Henderson

The major building works planned for St. John's are due to start next year. Our day case unit is to be significantly enlarged. There will be a new medical receiving unit and we are making some improvements to the theatre area. Patrick Armstrong is currently playing musical chairs with wards and specialties to allow the works to start. As the incidence of H1NI flu increases our new lead for ICU Samantha Moultrie has done an excellent job of preparing us. Fiona Kelly and Angus Wragg have joined us as Specialty Doctors and Murray Geddes has returned from Canada as a locum Consultant. We are sad to lose Aidan O'Donnell as he is emigrating to Hamilton, New Zealand. We wish him well.

Simon Edgar is now the Associate Postgraduate Dean for Quality Management. Lynn Carragher is our new College Tutor replacing the irreplaceable Dr. Donald Galloway. I am the new Chair of the Scottish Foundation Programme Board. Ken Stewart is doing 50 things for a significant birthday this year. These have included a tandem ride with his son from Lands End to John o' Groats and the New York Marathon. Shona Neal and team won the British Team Gymnastic championship this year. In the trauma department mountain bike fractures included Arnie Arnstein (clavicle, ribs) and Duncan Henderson (scaphoid). Skinny dipping at the 19th hole dislocations include Jeremy Thomas (shoulder).

Southern General, Glasgow – Kenny Pollock

The whirlwind of activity that envelopes the Southern continues. This year the new maternity extension building has been completed and opened in early December. The new ACH hospital, jointly run by the Victoria and Southern departments, has now been going for 6 months, and has had a significant impact on work, play and logistics.

The SGH maternity unit is waiting expectantly for the influx of extra customers accompanying the closure of the Queen Mum's in mid-January 2010. Pauline Stone, Joyce Reid, and Brian McCreath have moved their obstetric sessions to the Southern, and bolstered the maternity side of the newly split Consultant rota. A further 2 jobs with obstetric interest have been advertised. All will be squeezed into the new, slightly smaller, labour suite. We expect the trainees will manage all of their basic anaesthetic competencies and logbook numbers within the first 6 hours of arriving.

The new ACH, only 5 miles from the Southern campus, opened in June, and has provided us all with some great stories. Split site working continues to be a raw topic in coffee room chat, and a key factor in job plan renegotiations. The new 'paper light' hospital idea seems to have been misinterpreted, and clinics and surgical lists continue to be unencumbered by mere casenotes. However the single theatre suite is a nice change to what we are used to at the Southern. There is also a nice coffee shop.

Back at base we were all delighted by the reversal of ludicrous GGCHB parking policy, and bikes, bus passes, and lycra have been replaced by car scrappage and SUVs. The mooted transfer of vascular surgery to the Western Infirmary last year has still not happened, though if it does there is already a plan to centralise Urology to the Southern site. The new OPERA system installation has had the expected result of managers enquiring why the anaesthetists are taking 30-minute tea breaks between cases. It will only be a short time until intradermal RFID tags are part of the contract of employment. The increase in air transfers is starting to make the Southern look like a Manhattan heliport. Recently all surgical wards were reorganised, and we await the new Same Day Admissions Unit – to open after only 3 weeks planning. Who says the NHS is inefficient? The contract for the new adult hospital has been signed, and in an outbreak of common sense, the first 2 structures to go up will be car parks. We have still to see a shovel in the ground though.

Stobhill - Roger Hughes

I was correct when I said last year that it would be the last year I could say nothing has changed at Stobhill. We are now moving into the end game.

The new Ambulatory Care Hospital opened in May and has just won a major Architectural award. Until the move of Acute Services to GRI (currently pencilled in for Spring of 2011) we will have a record number of theatre lists running here between the 6 new theatres and the still working old block, some staffed by our colleagues from GRI struggling north through the blizzards. Distressingly tea and toast is no longer available in day surgery due to fire regulations.

The ACH now also houses the North Glasgow Pain Service - Tom McCubbin has found a safe place to park his Jag. Our old (11 years) 6 bedded ICU has been replaced by a 4 bed portacabin which unsurprisingly is usually full. Equally unsurprisingly the money has still not come through for the ACH extension the old unit was levelled for.

Jenny Cuthill started in the Spring as an ICU consultant and is now well settled in. Eleanour Walsh departed on her 60th birthday in June and has now been replaced by Alan Macfarlane. John Dolan was appointed to a new post in GRI but we are happy to see him up in the ACH for a day a week.

Distressingly Angus McKee got a needlestick injury from a Hep C patient and had to take Interferon and Ribavirin for a year which made a person who had climbed all the Munros unable to climb a flight of stairs. Happily since he finished his course in August he is now steadily improving and is now cycling to work again

Finally congratulations to Colin Miller who is President of the Glasgow and West of Scotland Society of Anaesthetists this year.

Stracathro Hospital - Charlie Allison
Our ambulatory setup flourishes, with almost full theatre utilisation Monday to Friday. Plastics & Maxfax are our latest customers and we're buying a laser for stone work. The anaesthetic cohort is fairly regular - Jan Beveridge & myself, with Norma Munnoch, Craig Cumming, Nicki Thompson, Neil Mackenzie & Cameron Weir on away-days from bonny Dundee. The recently-retired Robin Allison bounced in for a few sessions, as has Christina Beecroft, who keeps asking me when I plan to retire! (2012, unless there's a better offer!)

Netcare, providing privately for NHS patients, concludes its contract in February. They have done a power of surgical & diagnostic work, including hundreds of joint replacements for Aberdeen, Fife and Tayside - many performed by surgeons from these very regions. Tayside HB will take over its management and we await the detail of how they'll assimilate Netcare staff & maintain skilled cover out of hours; and whether this will be "core work" or "extra curricular" (and paid at premium rates).

Building of our new on-site psychiatric hospital will be start soon, saving us our twice weekly detour to Sunnyside for ECT. With all North Angus geriatric & psychogeriatric beds here, maybe I'll be able to finish my days at Stracathro after all!

Victoria Infirmary - Neil Smart
Summer 2009 saw the opening of the New Victoria Hospital, the splendid crescent shaped edifice across the road from the real Victoria. Well liked by patients, it offers plentiful car parking and even an escalator, an interesting device which seriously stress tests postop orthopaedic patients. I know we came out fairly well in the Scottish hip fracture audit but this seems to be taking things a bit far.

Unfortunately, we also lost half the chronic pain team members including Margo who relocated to offices in the new build. So near and yet so far. The department is certainly a much quieter place.

Perhaps in an attempt to fill the void, or inspired by Strictly (or Hinge and Brackett), Alan Brown and Jonathan Oates have taken up ballroom dancing and the piano respectively. At least it should liven up our Christmas night out a bit.

Brain Stuart finally retired from hospital practice in December although he will no doubt continue his flying doctor services on the long Emirates flights to New Zealand and Australia to visit his family. Brian has a reputation for seeking out the dead and the dying in the departure lounge and keeping them going until they reach their destination safely. We are all sad to see him go and wish him the best for a long and happy retirement.

Congratulations also to new consultants Choiti Guha appointed to Monklands, Laura McGarrity (Crosshouse), Joellene Mitchell(Ayr) and Brian Digby (Paisley).

Finally, much of the year has been overshadowed by swine flu and the attendant preparations necessary to deal with it. Now I hear we have to make preparations for gammon flu – that's for people who've had swine flu and think they're cured. Looks like another busy year.

Western General Hospital - Susan Midgely
The appointment of Alasdair Waite to the department in February 2009 brought the department up to 30 consultants. Susan Rae returned after a year's maternity leave and found that "nothing had changed". Jonathan Rhodes who joined the main department in 2008, applied for an ICU post when it arose and transferred his services at the beginning of December (the days of free transfers are long gone). It was the end of an era when Ian Grant retired from ICU in November 2009. Ian was head hunted from Dundee in 1988 and set up the ICU in the hospital. We wish him well in his retirement. He has, however, not quite left the scene as he is continuing to run the home ventilation service for a little longer. We have had a number of Polish anaesthetists working in the department to help keep the rota afloat. Let's hope these posts get converted into substantive posts for the bulge of trainees coming out with CCT's in 2010/2011.

EWTD has been a challenge. However, under the beady eyes of Kirsteen Brown, Liz Steel and Jeremy Morton, our rotameisters, the 48 hour week for our trainees was brought in 6 months ahead of the deadline. Although we had tried not to compromise daytime training lists there are times when you feel you never see the trainees.

The first of our trained PAA's joined the department in August but as she had been appointed to NHS Lothian she was promptly whisked off to the Royal Infirmary where the need for her services was perceived to be greater.

We have all had to dust off our stethoscopes as the FY1's have been removed from the preadmission clinic. At least one patient with severe aortic stenosis has been cancelled in the day of surgery admission unit thanks to the clinical acumen of a consultant anaesthetist.

Building on the experience of the South East Scotland Part C course, Keith Kelly with the help of many in the department has set up " Edinburgh Viva", an intensive one and a half day viva course for trainees preparing for the Primary exam. Candidates from all over the UK attended the first course.

The DCN consultants continue to attend many meetings on the reprovision of the service on the Royal Infirmary site. As yet nothing has been signed off and given the current financial climate.....More news next year?

Car parking remains the major bugbear on the site. Perhaps things will improve once the new multi-storey (double-decker) car park is completed in the Spring. You will need to wait until next year for an update.

Wishaw General Hospital - John Martin
Another relatively quiet year in darkest Lanarkshire.

We were joined by Niall Sims to swell our consultant body. By the time this gets to print, we'll have another new consultant, Stephen May, with a special interest in Chronic Pain.

Seamus Thomson will be retiring in January after a long and dedicated career in Anaesthesia, and having put in sterling work on numerous committees and advisory groups. We wish him a long and healthy retiral. Donald MacLean and I are jealously watching him canter to the finishing line as we follow him up the back straight.

At the coal face, not much has changed. For a while we were subjected to LEAN in an attempt to increase theatre throughput. Some of us haven't noticed much difference, but propaganda tells us everything is much better, so I suppose it must be.

Alison Simpson had a longish period off, nursing a ruptured Achilles tendon. This just proves than women of a certain age shouldn't be trying to beat their husbands at tennis. Alison has settled down now and limits herself to just beating the poor man.

'Til next year.

RHSC Yorkhill - Ross Fairgrieve
That time of the year has come again to tell of happenings within the walls of Yorkhill.

Much is still being spoken of the New Children's Hospital on the Southern General campus and I suspect this will be the case for several years to come. Questions continue to be asked about resource provision on a number of levels although I believe that there might be the same number of operating sites as we have currently. The official bed figure for the new build is 256. That is 16 more than originally planned! But alas still ten less than we have currently. However much is expected of the new 23 hour stay unit and we are told that this will reduce the need for in-patient beds (and obviously this also reduces the need for consultant office space and presumably also car parking).

Following on from this the Queen Mother's is about to close its doors for good and move its services to across the river. Despite anxiety from some quarters life will still go on as usual at Yorkhill. The official date for our move is now 2015 but surely this will be pushed back further still. And what of public money? There won't be any for sure. A few years down the line after closure of QMH I am certain we will be providing a perfectly good service with no on-site maternity. The 2014 Games will cost, those tram cars in Edinburgh will cost and a new Forth road bridge too! Surely a politician somewhere will ask the question?

The merry month of May saw management spend at least 2 nurses salaries on a Rapid Event. This was planned as a Rapid 'Improvement' Event I believe but there doesn't appear to have been any. Furthermore almost a week of elective operating was sacrificed for this! Joking aside, the event did improve communication and understanding between many users of the theatre suite. It also highlighted the need for increased funding and more nursing staff and other resources.

Waiting list pressures remain high and resources are being stretched to the limit. There are rumours of a capacity plan which will involve evening and Saturday morning elective working. Planning is one thing, finding the staff is another thing entirely.

On a different note no sooner than we had welcomed Rob Ghent to our department, he decided to depart, albeit temporarily. He is off to Great Ormond Street and then to Melbourne to further his skills in cardiac anaesthesia. He will return after a year and be part of our team of cardiac anaesthetists.

Use of Rigid Indirect Laryngoscopes (RILs) for Tracheal Intubation

John Henderson

Problems with airway management remain the most frequent cause of anaesthesia death in the UK [1] and elsewhere. Other issues highlighted by Closed Claims analyses include soft tissue injuries leading to mediastinitis [2] and the relationship between repeated attempts at intubation and increased morbidity and mortality [3] [4].

A properly positioned tracheal tube provides the most reliable airway for the anaesthetised or critically ill patient. The problem with tracheal intubation is that the most frequently used technique (Macintosh) has a significant incidence of failure to see the vocal cords [5]. Inability to see the vocal cords is the core problem with direct laryngoscopy [6] and can be described as failed laryngoscopy [7]. Anaesthetists have traditionally resorted to blind use of an introducer ("bougie") when they are unable to see the vocal cords with the Macintosh laryngoscope. However blind techniques have a significant failure rate [8] [9] and can cause serious trauma. There is good evidence that the introducer technique does not work well in Cormack and Lehane grade 3b views when the epiglottis cannot be elevated from the posterior pharyngeal wall [10] [11] and in grade 4 views. Success with the blind introducer technique (i.e. grades 3 or 4) has been described as a "near miss" [7]. Now that there is evidence of the efficacy of alternative visual techniques, blind techniques should be abandoned and all patients should be intubated under vision. The principles of evidence-based medicine have not been applied to airway management. The NHS claims that all staff are adequately trained. However, neither the NHS nor the UK anaesthesia institutions have taken sufficient steps to ensure development and retention of the skills in alternative intubation techniques of proven value.

There are patients in whom difficulty with direct laryngoscopy can be anticipated. Awake intubation with the flexible fibreoptic laryngoscope (FFL) remains the gold-standard management for these patients. The FFL is also of proven value for management of unanticipated difficult intubation [12]. However, many hospitals do not have a disinfected FFL immediately available at all times.

Tracheal intubation under vision was first achieved with the straight laryngoscope. Many case series have shown that the optimum straight laryngoscopy technique permits tracheal intubation under vision in most patients in whom this is not possible with the Macintosh [13] or McCoy [14] laryngoscope. Sixty years after the introduction of the Macintosh laryngoscope, prospective studies have confirmed the greater efficacy of the straight laryngoscope [15] [16]. However many anaesthetists have not made the effort to master the technique.

Other techniques of tracheal intubation under vision also have a high success rate when the Macintosh technique fails. Tracheal intubation through the ILMA is best performed with the flexible fiberoptic laryngoscope (FFL) [17]. Good alternatives through the classic LMA include passage of a 6 mm Microlaryngeal tube or use of the Aintree catheter to facilitate passage of a larger tube [18]. Both techniques require a FFL, as does oral fibreoptic intubation through a tubular oropharyngeal airway, another very successful technique [12].

A number of devices best described as rigid indi-

rect laryngoscopes (RILs) are now available. These devices obtain their image of the pharyngeal and laryngeal tissues from an optical system in the distal part of the device. The image can be transmitted proximally by a number of techniques, including fibreoptic, prisms and use of a distal camera. Although the term "video-laryngoscope" has been widely used to describe laryngoscopes with a distal camera and a proximal video display, it excludes important devices such as the Airtraq (although both it and devices such as the Bullard laryngoscope can be converted into video devices by attachment of a video camera) which uses the same technique. The term "video-laryngoscope" is exclusive and is imprecise as it has been used to describe a wide range of devices.

The first dedicated RIL, the Bullard laryngoscope, appeared in the late 1980s. The Bullard laryngoscope has a flat distal tip which curves towards another straight section which terminates in the handle. It conforms to the shape of the oral cavity and pharynx. The Bullard is low-profile and flangeless and is designed to be used with an insertion technique of rotation in the midline over the dorsum of the tongue. It is used, like straight laryngoscopes, to directly elevate the epiglottis. Orotracheal intubation with the Bullard laryngoscope is facilitated by a dedicated rigid stylet which conforms to the shape of the laryngoscope and delivers the tracheal tube into the line of sight distal to the laryngoscope tip. The technique is illustrated elsewhere [19]. The Bullard laryngoscope can also be used to facilitate intubation under vision when nasotracheal intubation is used. Many reports of series of successful intubations under vision with the Bullard laryngoscope in patients in whom this proved impossible with the Macintosh laryngoscope have been published [20] [21]. Bullard-type laryngoscopes have been used successfully in the presence of lingual tonsil hypertrophy (LTH) (more frequent than 1:1000 in the experience of this author) when indirect elevation of the epiglottis is not possible [22] [23]. In the last two decades there have been airway deaths which could have been prevented if the Bullard and the necessary skills were available. A 7-year success rate of 84% by all members of one department in patients in whom intubation with the Macintosh laryngoscope was not possible attests to its value [21]. The main problem with the Bullard laryngoscope is that disinfection to current standards is not possible.

A RIL based on the Macintosh flanged curved laryngoscope has facilitated visualisation of the vocal cords when the Macintosh laryngoscope has failed [24]. The rest of this discussion concerns flangeless RILs whose insertion technique is based on that of the Bullard. These include the Glidescope (Verathon), McGrath (Aircraft Medical), Airtraq (Prodol) and the Pentax AirwayScope (AWS). They differ in a number of details which influence the technique of use. The Glidescope and McGrath are designed to be used with indirect elevation of the epiglottis and independent passage of a styletted tracheal tube through the oral and pharyngeal cavities. There have been many successes with these laryngoscopes [25] [26]. However, there are reports of failure to intubate patients in whom the vocal cords can be seen [27]. Worse, the initial tracheal tube passage is blind and perforation of the palate [28] and tonsilar pillars [29] has been described. A 4-step technique of tracheal intubation has been developed to prevent this complication [30]. The Airtraq and AWS include a channel which guides the tracheal tube and delivers it into the line of sight of the optical system. They are bulkier than the Glidescope and McGrath, but can be used in patients with 3 cm or greater inter-incisor distance (patients with more limited mouth opening should be considered for awake flexible fiberoptic intubation). Although the manufacturers recommend indirect elevation of the epiglottis with the Airtraq, there are good reasons for preferring direct elevation with both this device and the AWS. First, as with the straight laryngoscope, it is inherently more reliable (e.g. LTH). Second, an epiglottis which can only be partially elevated by the indirect technique will often obstruct passage of the tracheal tube, a problem prevented by direct elevation.

Although basic competence with RILs is gained rapidly, optimum technique requires regular use. The technique can be divided into preparation of the equipment, insertion of the laryngoscope, optimisation of the view of the vocal cords and passage of the tracheal tube. Devices designed for indirect elevation of the epiglottis are inserted close

to the tongue so that they take an anterior route through the mouth and pharynx. A different insertion technique is suggested for devices which are designed for direct elevation of the epiglottis. The likelihood of passing the tip of the laryngoscope posterior to the epiglottis can be increased by manoeuvres such as jaw-thrust and passing the RIL in a posterior route (similar to the LMA) against the palate and posterior pharyngeal wall [31]. After insertion to a position where the tip is likely to be posterior to the epiglottis, a vertical lifting force (less than that required with direct laryngoscopy) applied to the handle is used to elevate the epiglottis. The view of the vocal cords is optimised before attempting to advance the tracheal tube. The alignment of the tube and the vocal cords may be suboptimal so that the tube passes on the pharyngeal side of the aryepiglottic fold. This can often be overcome by rotating the RIL leftward so that the tracheal tube passes on the laryngeal side of the aryepiglottic fold. The tube can be rotated under vision so that its tip passes on the desired side of the aryepiglottic fold. A useful trick is to pass an angulated introducer (bougie) through the tracheal tube so that it can be guided into the trachea, followed by tube passage over the introducer. Nasotracheal intubation may be used when elevation of the epiglottis is not possible [32].

RILs have a few limitations. They require sufficient mouth opening for insertion. It is impossible to insert these devices in some patients with fixed neck flexion. Awake FFL intubation should be used in such patients.

High success rates in patients in whom the vocal cords cannot be seen with the Macintosh laryngoscope have been described with all RILs. Particularly impressive is the success rate of greater than 99% in such patients with the AWS [33]. These devices provide a simple means of achieving tracheal intubation under vision when the Macintosh fails. They should be first choice when direct laryngoscopy fails. They are probably the technique of choice in patients with potentially unstable cervical spines. Tracheal intubation with the Macintosh laryngoscope in combination with manual in-line stabilisation (MILS) is a lose-lose technique in that the incidence of failure to see the VCs is greatly increased [34] and cervical spine motion is not prevented. Better visualisation of the VCs with reduced neck movement during use of MILS was demonstrated with the Bullard [35]. This has now been shown with most RILs.

The case for regular use of RILs is very strong. Some are concerned about cost, but it is trivial in comparison with the cost of surgical and radiology equipment, the cost of many drugs used in anaesthesia and monitoring techniques such as depth of anaesthesia. RILs facilitate rapid, atraumatic tracheal intubation under vision in most patients in whom this is not possible with the Macintosh laryngoscope. RILs should be available (with training) wherever airway management is needed, and they should be used regularly. This practice will make anaesthesia safer.

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Scottish Winter Meeting
Inverness
November 2009

This year's Scottish Society Winter Meeting, organised by no less than the President, John May, himself (ably assisted by Ian Johnston, Ken Barker and Ross Clarke), was held at the Centre of Health Sciences in Inverness on 19th - 20th of November 2009.

The venue, a shining, (relatively) new addition to the Raigmore campus intended to serve as a teaching and clinical skills centre, proved to be an excellent choice bar the odd complaint about the visibility of the projection screen (something to do with helicopters landing on the roof!). Due to previous experience of running meetings in the "far north" a new format was trialled, starting later on the Thursday morning but rolling over to the Friday with a mid-afternoon finish, thereby allowing the travellers adequate time to return to their home bases. The trial would appear to have been a success with almost 100 delegates registering for the two days. This also allowed us the chance to adapt the second day for the first SSA "Safety in Anaesthesia Day" and the delegates the opportunity of an overnight stay and socialising at the Winter dinner held in the nearby Kingsmills Hotel.

The first day kicked off with a warm welcome and introduction by the President who chaired the first session. The first speaker of the day was Prof. Stephen Leslie, a full time cardiologist at Raigmore Hospital, who spoke about coronary artery stenting and its implications for anaesthetists. A grey area for many, he gave an illuminating speech on the benefits and implications of stenting and the different types of stents commonly used. He stressed the importance of not stopping antiplatelet treatment and the importance of liaising with the cardiologist if surgery is planned for the near future, perhaps delaying stenting until after the surgical procedure has been performed.

The second speaker, Dr. Alistair Todd, consultant interventional radiologist in Inverness, spoke about "Ultrasound assistance in anaesthesia - I.V access and forward". With current guidelines recommending ultrasound guidance for central venous access and the rising popularity of ultrasound amongst anaesthetists for numerous other procedures, Dr.Todd's talk was an insightful master class on the use of ultrasound, directed at both beginners and more advanced users alike. He offered a selection of useful tips and perhaps managed to convince even a few "old-school" anaesthetists to try ultrasound for central venous access.

The early afternoon session, chaired by Ken Barker, was dominated by sci-fi style presentations on Virtual Reality from Drs Vassilis Charissis, a scientist and senior researcher with a background of engineering and graphic design, currently working in the Glasgow School of Art, and Robi Zimmer, consultant anaesthetist at the Golden Jubilee Hospital in Clydebank. They demonstrated novel approaches to regional anaesthesia training by the use of virtual reality technology and the breathtaking graphics and visual displays were enough to prove that we were looking at what is likely to be reality in the near future and could revolutionise learning and medical training as we know it. They currently are working on the use of this technology to assess virtual reality training in spinal or regional procedures or even 3D anatomy on simulators and their pilot studies show that these methods are being well received by the trainees of the "computer game generation". It is interesting to note that their research comes at a time when the hours for doctors in training have been drastically reduced and there are growing concerns about the general experience of future trainees on appointment to the consultant grade. Virtual reality technology for training may be a part of the solution.

The next talk "Oesophagectomy: from Ivor Lewis to MAS " took us from the virtual back to hard core reality with Les Gemmell ,consultant anaesthetist and clinical lead for major upper GI surgery at the Maelor Hospital, Wrexham who gave a fascinating account of the services in Wrexham which is a tertiary referral centre for oesophageal cancer. He spoke about their experiences with the centralisation of services, and the impressive improvement in patient outcomes following changes in patient selection, surgical techniques and intensive care management.

The final talk of the afternoon, chaired by Vice President Jim Dougall, comprised the Guest Lecture and was

Speakers (clockwise) - Stephen Leslie and Alistair Todd, Les Gemmell, Keith Anderson, Tracy Coates, Joan Russell, Rona Patie and Chris Dodds.

John May presents Ronnie Glavin with the Gillies rose bowl.

delivered by Dr.Keith Anderson, consultant anaesthetist at Glasgow Royal infirmary. Keith looked at whether ultrasound had changed options for upper limb regional anaesthetic techniques and provided an in-depth analysis of upper limb blocks, success rates with different techniques and approaches and the variation with the experience and skill level of the person performing the technique. This was all accompanied by excellent visual displays and left the majority of us with a desire to "give-it-a-go"!

The second day, focussing primarily on "Patent Safety", was chaired by Ian Johnston who was delighted to welcome Prof. Chris Dodds, and offered him the challenge (after the previous evening's dinner!) of giving the first presentation of the day on "Fatigue in Anaesthesia". A renowned expert on the subject, Chris' fascinating lecture outlined sleep patterns with emphasis on fatigue at work, no doubt experienced, at some stage, by every single member of the audience. He explained how younger trainees might think they have recovered after sleep deprivation when in fact they haven't and are more likely to make mistakes. He also informed us that older people, with more experience, perform better even if sleep deprived as they have more resources on which to draw. Irrespective of age it appears people perform better, despite sleep deprivation, if they feel a part of a team, and last but not least, he reminded us that it is the individual's responsibility to ensure they are not fatigued at work, which to some of us, I guess, translates to " even more coffee"!

Following the patient safety theme the next talk was by Ms. Joan Russell, Head of Anaesthesia and Surgery at the National Patient Safety agency who spoke about "Medication Errors in Anaesthesia". Being one of the most common errors in anaesthesia she stated that the majority of incidents went unreported and stressed that clinicians should take the lead in the patient safety agenda. She gave a few examples of medication errors and measures that have been taken to improve patient safety including syringe labelling, two person checks where possible, and the development of non-interchangeable connectors for, among others, intravenous, spinal and epidural administration.

The next speaker was Dr. Rona Patey , consultant anaesthetist in Aberdeen and Deputy Head of Medical and Dental Education at the University of Aberdeen. She gave an enlightening talk on non technical skills in anaesthesia and, as she put it, "thinking about thinking about anaesthesia". She talked about how poor non technical skills resulted in more mistakes, and the development of the ANTS (Anaesthetic non technical skills) behavioural marker system which has 15 elements including planning, prioritisation, identifying resources, team working, situational awareness and decision making . She also elaborated on how trainers and trainees in Aberdeen are being encouraged to better their practice and use this alongside other workplace based assessment tools. Her aspiration is to "catch them young" by introducing such training into the medical curriculum.

Continuing with the safety theme was Ms. Tracy Coates, Anaesthetic Lead, NPSA who spoke on "Patient Safety Incident Reporting-the way forward". She stressed the need for incident reporting to provide better patient safety and talked about the safe anaesthesia liaison group (SALG) which consists of members of RCOA, AAGBI and NPSA and provides rapid responses to feedback and discussed new steps being taken to further help with speciality specific reporting.

"The Gillies Lecture" was then introduced by Dr John May who led us through a brief biography of John Gillies, with particular reference to Gillies' efforts to obtain consultant status for anaesthetists at the inception of the NHS and the significance of this in today's pressures, before handing the floor over to this year's lecturer, Ronnie Glavin. The title of Ronnie's talk-"I wish I hadn't done that" is one with which we can all associate as he took the audience through a fascinating journey of problem solving and decision making

It is customary for the Winter Meeting to conclude with the "Gillies Lecture". However, most will admit that these are not normal times and great changes to the profession are looming! One of these is "Revalidation" of which we are all aware, but few understand in any great detail so although the meeting had officially finished and many had to take to their chariots, Chris Dodds (RCoA/ARMC revalidation supremo in anaesthesia) generously agreed to delay his weekend break to "update us" on the most recent advances in our future responsibilities. He deftly took us thorough the intricacies of revalidation and relicensing and answered many burning questions lingering in the minds of the audience but, although it is now upon us, "don't hold your breath!)

This brought us to the end of the two day meeting and although the delegates were not fortunate enough to enjoy the sunny "Inversneckie" weather (it rained heavily both days), I sincerely hope they enjoyed the hospitality and the efforts of the organisers.

J Rajagopalan
ST2 Anaesthetics ,Raigmore Hospital

Obituary

Ian Murray Lawson

Dr. Joseph Ian Murray Lawson (Ian) died peacefully on 31st March 2009 in his 85th year. He was born in Dundee where his father was a general practitioner and educated at Lawside Academy and the Abbey School, Fort Augustus. He particularly enjoyed the latter, developing an abiding interest in the outdoors and ornithology in particular. Remarkably he had a tame jackdaw which would accompany him home to Dundee for the holidays – he cycling vigorously and the jackdaw flying overhead!

He qualified from Edinburgh University in 1947 and took up his house officer job in Andrew Logan's highly regarded thoracic unit at the Eastern General. Here he came under James Straton's influence, developing a particular interest in the management of respiratory problems. Post-registration, his first job was as sole resident anaesthetist/casualty officer in Harrogate with no previous experience – incredibly as it seems today. He learned quickly, becoming adept with what were the standard techniques of anaesthesia involving ether, cyclopropane and thiopentone, always with spontaneous respiration. His future career was decided and, following two years of compulsory army medical duties in Hong Kong, he was duly appointed to a resident anaesthetic post at Liverpool Royal Infirmary to commence formal training. At this time, Liverpool, with Cecil Gray, Gordon Jackson-Rees, John Dundee and others was the place to be, particularly with the recent introduction of curare and controlled ventilation to clinical practice.

Ian returned to Dundee in 1951 to complete his training and was keen to introduce the "Liverpool technique" for abdominal surgery, replacing the then current practice of high spinals, cyclopropane and blind nasal intubation. He was particularly excited when the Royal Infirmary obtained their first ventilators in 1953 following the Danish polo epidemic. He was actively involved in pioneering cardiac surgery in Dundee Royal Infirmary along with Sandy Forrest and the late Sir Donald Douglas in the early '60s, anaesthetising, manning the Melrose perfusion pump and providing post-operative intensive care – such as it was. Although the results were disappointing and open heart surgery ceased in Dundee by the end of the decade, it left an important legacy with major advances in peri-operative monitoring and the eventual establishment of a dedicated intensive care unit when Ninewells opened in 1974.

Ian was appointed Consultant in Administrative Charge of the anaesthetics department in 1972 on Willie Shearer's retirement, a post he held with

distinction until it was abolished 12 years later to be replaced by the now familiar divisional system. It is fair to say that he was no fan of the new system which he found to be "inefficient and potentially trouble-making"; he much "preferred to do business professionally and in private". He continued as Head of the University Department until retirement in 1989.

His main areas of clinical interest were obstetric and dental anaesthesia. He established an obstetric epidural service in 1969 and, along with Mel Milne, published the first big series of Caesarean section under epidural blockade. He also published several important papers on dental sedation and was one of the early proponents of local anaesthesia and sedation in dentistry, enthusiastically promoting its safety over the then almost ubiquitous dental chair anaesthesia. He influenced countless dental undergraduates in their future practice as well as many anaesthetic trainees in their early formative years. The Dundee postgraduate dental sedation courses continue to this day as testament to his foresight in introducing them 45 years ago.

Ian's career spanned a time of immense change, both for medicine as a whole with the inception of the NHS a year after he qualified and for anaesthesia in particular. The specialty became established in its own right with formalised training and examinations, a proper scientific and research basis and recognised consultant status. New drugs and techniques replaced those of the previous century and new services developed such as cardiac surgery, intensive care, pain management and obstetric analgesia – all necessitating a major expansion in manpower. Ian Lawson embraced, encouraged, supported and guided all of this in Dundee, recruiting several like-minded colleagues to mould the Ninewells Department into one of the best in the country. He spent a year as Associate Professor in San Diego in the late '60s giving him an invaluable international perspective and also an introduction to nurse anaesthetists of whom he had mixed views.

Throughout all the developments in his career he was always mindful of what had gone before and encouraged trainees to interest themselves and acknowledge the history and evolution of the specialty. One of his favourite quotes was from T.S. Elliot "the historical sense involves a perception, not only of the pastness of the past, but of its presence".

Ian Murray Lawson was very much an old-style head of department – instantly recognisable and respected with his tall, lean, imposing figure, professional manner and immaculate dress code. He demanded high standards both of himself and colleagues and was an excellent ambassador for anaesthesia at home and abroad. He was an elected member of the Scottish Standing Committee of the College, Council of the Association of Anaesthetists and the Obstetric Anaesthetists' Association, President of both the Association of Dental Anaesthetists and the Society for the Advancement of Anaesthesia in Dentistry and one of a select few to be President of the Edinburgh and East of Scotland and the North East of Scotland Societies of Anaesthesia. He was particularly proud of his election to the Presidency of the Scottish Society in 1977 and the invitation to deliver the Gillies Lecture in 1987. For this he chose "Relaxation – a historical perspective" as his subject, delivering a typically comprehensive and erudite review peppered with fascinating personal anecdotes.

Ian retired in 1989 and enjoyed a long and happy retirement with his wife, Grace, indulging his interests in gardening, classical music and cricket. He particularly enjoyed regular visits to their house outside San Gimignano in the Tuscan countryside. As well as Grace, he leaves a son, Philip, who runs a consultancy company in English language and culture in Paris and a daughter, Joanna, a consultant paediatric ophthalmologist in London.

The family have very generously gifted money to the North East of Scotland Society to endow the Lawson Memorial Prize for the best trainee paper of the year. Coming, as it does, on the 50th anniversary of the Society of which Ian was a founder member, it provides a fitting tribute to a man who did so much throughout his career to teach and encourage junior colleagues.

Neil Mackenzie

Trainees' Meeting

Peebles Hydro 17th April 2009
Jenny Edwards

For the third year running the trainees' meeting has been twinned with the Scottish Society of Anaesthetists Spring Meeting at Peebles. This partnership continues to prove successful with trainees from all regions braving car sickness on route to Peebles to enjoy a day of education beginning with bacon butties at registration.

The society President Dr John McLure opened the meeting with a warm welcome. The morning session began with Dr Anne McCrae from the Royal Infirmary Edinburgh discussing the question of whether or not morbidly obese parturients should be anaesthetised by trainees without supervision. Dr John Wilson, also from Royal Infirmary Edinburgh, continued to provoke questions with his lecture entitled 'The end of the acute pain service'. The pre-lunch slot was occupied by Dr Crispin Best, Royal Hospital for Sick Children and Dr Colin Lay, Stirling debating 'Centralisation of Paediatric Services in Specialist Centres is Dangerous'.

Lunchtime enabled the all important socialising between the regions as well as time to visit the trade stands and view the twenty posters on display.

The post-prandial lecture slot was deftly dealt with by Dr Michael Murray, Institute of Neurological Science Glasgow, who kept the delegates on the edge of their seats with a lecture on the history of neuroanaesthesia. The final two speakers took on a 'travel' theme. Dr Drew Inglis from the Southern General Hospital Glasgow updated us on the relatively new Emergency Medical Retrieval Service, which has been designed to cover remote and rural communities in the North and West of Scotland.

The final lecture of the day was presented by Dr Michela Salvadore from Aberdeen about her out of programme experience in Perth, Australia, sharing her experience of Australian airways and iron man events.

The poster presentation first prize was awarded to Dr Paul McConnell, Glasgow for his poster entitled 'Do Not Attempt Resuscitation (DNAR) orders: Decision making and training in two Scottish Hospitals'. Second prize was awarded to Dr Rosie Snaith, Glasgow for her poster entitled 'Maternal Intravenous Drug Abuse: Effects on Anaesthetic Workload'.

The meeting was drawn to a close and the social activities began with a few hardy souls braving the 5 km run, whilst others used the hotel facilities to prepare for the champagne reception, dinner and ceilidh later that evening.

This year was trainee representative Dr Sarah Hivey's last year serving on the committee. We would like to thank her for her hard work organising the trainees' meetings over the last few years and wish her well for the future. Her replacement is Dr Sarah Cross from the Lothian region.

We would like to thank all the speakers, trade sponsors, hotel staff and the executive committee who helped to ensure that the meeting was a success. We look forward to seeing you all for more merriment in 2010.

Annual Golf Outing
Edzell Golf Club June 2009

2009 saw the Society's golf outing take place at Edzell Golf Club which is the home club of Charlie Allison, formerly editor of this publication. The village of Edzell lies midway between Dundee and Aberdeen and the golf course itself sits at the gateway to the Grampians in the foothills of the Angus Glens.

The original course was laid out in 1895 by Bob Simpson, golf architect and member of the Carnoustie golfing family. Rental of the land was £50 per annum. The club held a professional tournament in 1902 with James Braid, Arnaud Massey and Harry Vardon participating. Braid was later to play in the 1933 Open at St Andrews and visited Edzell to advise on course alterations which were completed the following year. Recently the clubhouse has been extended and improved and a 9-hole course and driving range added.

On a dry and largely sunny day, the Stableford competition in the morning was won by Brian Stuart from the Victoria Infirmary, Glasgow. His winning margin over Malcolm Daniel, Tony Moores, Malcolm Watson and Farquhar Hamilton was a comfortable 4 points. The Stableford winner has now come from the Vic department in successive years. Winner of the nearest-the-pin competition was Grant Haldane from Hairmyres.

After a tasty and speedy lunch the annual West v. East-and-West contest was convened. The East-and-West group were resounding victors with Alex Macleod and I as the only winning West partnership.

One of the subtleties of choosing a course for any outing is to find one which is interesting and enjoyable to play but not so physically arduous that 2 rounds are a test of endurance. Edzell ticked all these boxes – as had Crail the previous year – and was very much enjoyed by the whole group. It is an excellent course and the Angus Glens in the background make for a striking setting.

My only substantial regret from the outing is of a photographic nature. You may be aware of the stir created by the photograph from the Crail outing of Malcolm's practice green drill with 2 golf tees while Alex practiced his sprint start in the background. No such images are available this year but I hope the photos on the facing page convey the participants' enjoyment of the day.

Donald Campbell Quaich

2010 Trainees' Competition

Up to five trainees will be invited to give a 10 minute presentation
of their research, audit or
interesting case at the Annual Spring Meeting at Peebles.

As well as the Donald Campbell Quaich, the author of the best paper will receive a prize of £250
(and will get to go to Peebles at the expense of the Society in 2011)
There will also be prizes for the runners-up.

Entries by the end of February please. Details from Secretary, Elizabeth McGrady.

Brian Stuart and trophy