

The Annals of The Scottish Society of Anaesthetists 2008

MMC ISN'T WORKING.

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UNEMPLOYMENT
OFFICE





2008 Programme of events

April 18th Trainees Meeting at Peebles Hydro
April 18th-20th Annual Spring Meeting at Peebles
June 20th Annual Golf Outing at Balcomie, Crail
November 20th Annual Scientific Meeting, Aberdeen
(plus RCoA Scottish Study Day 21st Nov, same venue)

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

www.scottishsocietyofanaesthetists.co.uk



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Editorial

Readers will understand that I gave much thought to the first sentence of my first editorial report for the Annals. Something light, refreshing and humorous yet alive with thrilling possibilities seemed appropriate. Sadly, nothing emerged after much effort and so I will simply proceed. I must first thank Steven Lawrie for his fine publications over the last four years and for the guidance he has given during the preparation of this edition.

My thanks also to Angela Heidemann for agreeing to continue with the front page artwork and for her excellent illustration on the front cover. I prefer not to dwell on the shortcomings of the NHS but I could not let MMC/MTAS pass without comment. Recent years have seen events which I had started to think I would never see in my lifetime - Labour disappearing as a force in Scottish politics, three Scottish football teams in Europe after Christmas, three successive Labour General Election victories - but the MMC debacle was truly a once in a lifetime event. I have always been unimpressed by the great British medical institutions but I never dreamt I would see such a substantial exercise carried out with so little justification and so much rank incompetence.

However, Scottish anaesthesia suffered less than most. That is a tribute to the excellent efforts of the Transition Board who did so much to minimise the flaws of a fundamentally unsound system, facilitated by intelligent decisions made in the Scottish Office.

Harry Burns made a further contribution by virtue of his efforts at the Society's Annual Meeting at Peebles, where he spoke about the biology of poverty. The conviction and passion with which he described the interaction between poverty and disease in the least wealthy inhabitants of our country allowed him to quite transcend his surroundings. His lecture was perhaps the best I have ever heard at a medical meeting.

At that same meeting I was privately asked what my plans for the Society were. My questioner was disappointed by my lack of a ready answer. On pragmatic reflection, I hope to maintain those parts of the Annals (and Society) which work well and modify or eliminate those parts which do not. Editorial comments, save for this column, will disappear as will humorous columns (for which I have no aptitude) unless a member of the Society wishes to provide appropriate material. There will be a committed and unrelenting focus on the very best material that members of the Society have to offer. Sadly this will be offset by my negligible abilities as a photographer.

Enjoy.....





President's Message



It was a great honour for me to take over the chain of office from Margaret Stockwell at the AGM in Peebles in April 2007. Congratulations to "Maggie" on an excellent presidency.

The Annual Trainees' Meeting was held at Peebles on the Friday immediately preceding the AGM. This new format proved to be successful and several of the delegates stayed on for the Saturday meeting and evening. The organisers, Choiti Guha and Ewan Jack, are to be congratulated on a first class programme. Thanks to their successors, Jenny Edwards and Sarah Hivey, the programme for 2008 also looks very promising. We were treated on the Saturday to outstanding presentations from Dr Harry Burns, the guest lecturer, and Dr Tim Walsh, the keynote speaker. The presentations for the trainees' prize were also of a very high standard. The weekend was an overall success and capped the achievements of a praiseworthy term of office for Alistair Michie, Jane Chestnut and Steven Lawrie as honorary secretary, treasurer and editor of the Annals respectively. Elizabeth McGrady, Kerry Litchfield and Colin Runcie have now taken over these positions and already have shown that they are up to the challenge.

Instead of our usual Annual Scientific Meeting, in October 2007 there was a conjoint meeting with the South of Ireland Association of Anaesthetists in Killarney. The small but worthy band of representatives from our society was treated to a very informative and high quality meeting, and a first class weekend.

Anaesthesia in Scotland is currently having to deal with several different influences. The new SNP "Scottish Government" is committed to reversing certain aspects of the previous plans for the rationalisation of acute services, as well as setting targets that are likely to divert resources from anaesthesia. Along with MMC (Modernising Medical Careers) and the European Union's Working Time Directive, these plans will add to the number of trainees' rosters that are already unachievable without the increasing use of locums and staff grades. Chaos threatened after the over hasty introduction of the UK-wide Medical Training Appointment System (MTAS). Early independent actions and a lot of hard work by those involved in the process in Scotland meant that fewer trainees were disadvantaged than would otherwise have been. A considerable amount of stress, however, was endured along the way. The system failed because it had flaws, it was not fully tested before implementation, and there was no confidence in its ability to deal fairly with the massive excess of applicants over the number of posts, a situation created by the simultaneous MMC changes. Major concerns had been expressed about the impact of the latter on our specialty and major concerns still exist. These include:- the effect of the restricted number of training posts in anaesthesia on service provision and future manpower; the ever increasing possibility of a post-CCT sub-consultant grade; the already increasing number of FTSA and staff grade posts (currently with no formal provision for ongoing training); and the difficulties for those wishing to change specialty and those wishing to get back into training. The major challenge will be in maintaining the status of our specialty and not losing what has been hard earned over the years. As revalidation with regular relicensure and specialty recertification looms ever closer, there are also concerns as to whether that process can be both practical and fit for purpose.

Last year, unfortunately, saw the death of three past presidents of the society, Professor Sir Gordon Robson, Dr Malcolm Shaw, and Dr A.B.M. (Mike) Telfer. All made major contributions to the society and to our specialty. They will be sadly missed and our condolences go out to their families.



Presidential Address

Are mistakes a fact of life?

Alf Shearer 2007

Last year as I was driving down to The Society's Annual General Meeting in Peebles, the traffic ahead stopped. It was just 6 miles from Peebles and about a mile north of Eddleston, and there had been an accident.

About 50 yards down the road, a motorcyclist was lying half on the grass verge. He was comatose with a GCS of 3, he was breathing with difficulty through an obstructed airway, and he was cyanosed. With jaw thrust his airway cleared and his colour improved. He had a good pre-auricular pulse. By the time the ambulance arrived, his breathing was beginning to fade, but his pupils were reacting. I was given a resuscitation bag and mask, and his lungs ventilated easily. When we got him into the ambulance, I did a laryngoscopy and could see his vocal cords, but he resisted tracheal intubation. His right pupil became fixed and dilated. I asked the ambulance crew to call out the nearest emergency medicine mobile team because he needed intubation and drugs were required. As we approached the rendezvous in Penicuik, his left pupil also dilated and stopped reacting to light.

The emergency medicine team was waiting for us opposite Penicuik Town Hall, and I handed over to the team leader. He agreed that the patient needed intubation and asked if I would wait until they had done so. The patient was given 100 mg of suxamethonium, and cricoid pressure was applied. There seemed to be a problem inserting the laryngoscope and the larynx was not visualised. An oral endotracheal tube was inserted blindly, and the

team seemed satisfied with the position of the tube. I asked if I could have a listen to the chest, and the only sounds that I could hear were the gurgles of gastric inflation. I asked if I could have a try at intubation before the suxamethonium wore off and, with a grade 1 view of the larynx, managed to pass the endotracheal tube. His lungs were easy to inflate, his oxygen saturation was good, and his pupils had both come down in response to mannitol.

As I carried on my journey to Peebles, my mind turned to my choice of topic for my presidential address for the following year. Not being much of an expert at anything, except perhaps making mistakes, human error had been on my list of possible topics. Human error was a likely cause of the accident, and I had just witnessed another two crucial

Figure 1. North of Eddleston



	No. of patients	Patients with errors	No. of errors	Errors per patient
All lists	414	33 (8%)	38	0.09
Solo	69	4 (6%)	4	0.06
Teaching	345	29 (8%)	34	0.10
Tchg SHO	144	9 (6%)	9	0.06
Tchg SpR	198	17 (9%)	21	0.11

Table 1. Anaesthetic logbook – errors by anaesthetist

errors, namely failure to intubate the trachea and, even more important, failure to recognise it. My mind was made up. The topic is human error, and the title is “Are mistakes a fact of life?”

Human error is the sole cause in 57% of road traffic accidents and a contributing factor in 90%.¹ RTAs are responsible for in excess of 3,000 deaths per annum in Britain,^{2,3} or the equivalent of one jumbo jet airliner crash per month.⁴ In the workplace, human error accounts for 90% of all accidents. It has been a major factor in almost every recent high profile accident, Chernobyl and the Challenger for example.⁵ In airline crashes where the cause has been identified, human error was a major cause in 60%.⁶ The cost in terms of human life, misery, and finance is very high.

According to the report of the House of Commons Committee of Public Accounts last year, there were almost 1 million (974,000) patient safety incidents and near misses in the NHS in England in the year 2004-5.⁷ An article in The Independent on 8 December 2006 stated that, “The risk of dying

on a scheduled aircraft flight today is one in 10 million. the risk of dying in hospital as a result of medical error is one in 300. That means hospital treatment is 33,000 times more dangerous than flying on a scheduled airline.”⁸ There was no reference to the source of this information, and I found both these statistics hard to believe. However, I did find evidence elsewhere that supports these figures.⁹⁻¹¹

Tables 1-3 are the results of my analysis of all the unwanted events, not just critical incidents or near misses, that I recorded in my Royal College of Anaesthetists logbook for the year 2006. I anaesthetised 414 cases (anaesthesia is 58% of my direct clinical care workload), and I recorded 269 unwanted events. One hundred and seventy five patients, that is 42%, had one or more unwanted events. One hundred and thirteen had 1 event, 36 had 2 events, 20 had 3 events, and 6 had 4 events. The mean was 0.65 events per patient.

I went through each of the unwanted events and, quite subjectively, decided whether an error was

Table 2. Anaesthetic logbook – type of error

	Total	Connctn	Skill	Knowldg	Attentn	Cognitive	Memory	Perceptn
<i>Total</i>	79	21	17	15	10	8	5	3
Pre-op	31	17	1	7	0	4	2	0
Post-op	1	0	0	0	0	0	0	1
Anaes - solo	4	0	0	1	1	0	1	1
Anaes – tchg	34	0	15	6	9	1	2	1
Non anaes	9	4	1	1	0	3	0	0

	No. of patients	Patients with errors	No. of errors	Errors per patient
All lists	414	15 (4%)	16	0.04
Solo	69	3 (4%)	3	0.04
Teaching	345	12 (3%)	13	0.04
Tchg SHO	144	2 (1%)	2	0.01
Tchg SpR	198	9 (5%)	10	0.05

Table 3. Anaesthetic logbook – errors by anaesthetist excluding those caused by skill or knowledge deficit.

involved in the event or not. Thirty eight events were errors by an anaesthetist, giving an incidence of 0.09 per patient. Four of these were when I was on my own, and 34 when I was teaching in theatre. This gave a lower error rate of 0.06 when solo compared with 0.10 when teaching, but the difference is not statistically significant.

I also looked at the type of error, and 15 of the errors when with trainees or students were caused by skill deficit and 6 by knowledge deficit. The latter was the cause of one error when solo.

When these were excluded, only 16 errors remained, and there was no difference in the error rate of 0.04 errors per patient between solo and teaching lists. However, there was a difference between 0.01 when teaching SHOs compared with 0.05 when with a specialist registrar. Although this is not statistically significant, one does wonder whether two experienced anaesthetists are more dangerous than one. Most of these errors were due to attention deficit.

As human beings, we have a number of limitations, and errors occur when we exceed these and fail to perform a task correctly. We have a limited capacity for focusing our attention, and we do not always see things as they really are. Knowledge and memory frequently let us down. Skill and coordination have limits even for those

highly trained for a task, and logical reasoning fails more often than most of us would like to admit. There are several factors that can affect these limits. Distractions frequently affect our attention, and sensory and cognitive overload impact on all our limitations. Skill and knowledge deficit becomes less with training and learning. Lack of sleep, again, affects all aspects of performance. External pressures, affecting mainly logical reasoning, are often contributory to errors that cause accidents. Attitude is also a common contributing factor and one of our major challenges. Alcohol, drugs, and medication, like lack of sleep, can affect all human limitations. Interpersonal relationships and emotions can have a major influence. These are just some of the factors that influence our thresholds for error.

I saw an example of a perception error when I visited a patient that I had anaesthetised earlier that day. She said that she was feeling nauseated and

Figure 2. Drug administration error

AS REQUIRED THERAPY					
Medicine Form	Date	18/10/06	18/10/06		
<i>Tramadol</i>	Time	16.00	16.30		
Dose & Frequency	Route	Dose	Initials		
<i>50mg 8^h ^{minutes} then 10mg/100</i>	<i>IV</i>	<i>50mg</i>	<i>JOM</i>		
Signature	Start Date	Date	Time		
<i>[Signature]</i>	<i>18/10/06</i>				
Indication / Notes	Pharmacy	Disp	Initials		

generally unwell. I asked if she was in pain, to which she replied that a nurse had just given her something for pain, into the thing in the back of her hand, which was a Venflon intravenous cannula. I immediately checked the drug prescription chart (Figure 2) because I did not recall prescribing anything intravenously. A prescription had been written pre-operatively for Tramadol 50 mg 8 hourly, no more than 200 mg/24 hours orally, which does not make perfect sense to me. However, 100 mg had been administered intravenously. I pointed this out to the nurse, but she was still convinced that the prescription was for 100 mg intravenously. This was a perception error, but the hand writing, the wording, and the limited space available on the new type of chart were contributory factors.

Judging the offside rule in football is an example of a task that has a very high error rate. An attacking player who is participating in play is in an offside position when he is closer to his opponents' goal line than both the ball and the second last defender when the ball is played through by a member of the attacking team. It is his position when the ball is kicked, not when he receives it, that counts. A Spanish doctor called Francisco Belda

Figure 4. Offside by forty centimetres. Belda Maruenda F. *BMJ* 2004; 329: 1471. Copyright © 2004 BMJ Publishing Group Ltd. All rights reserved.

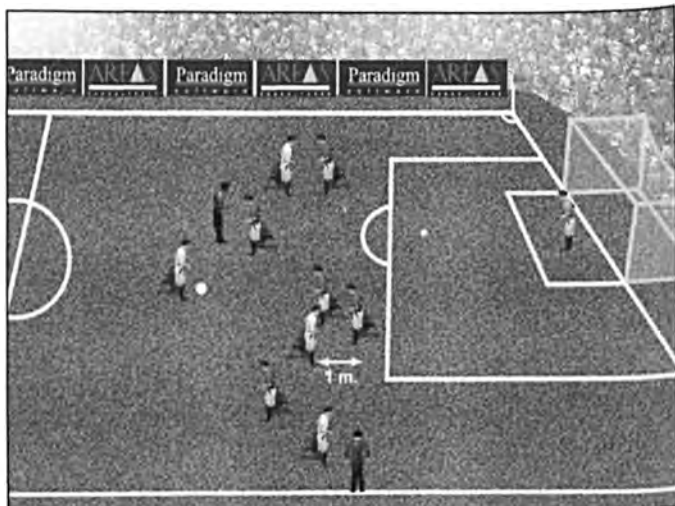
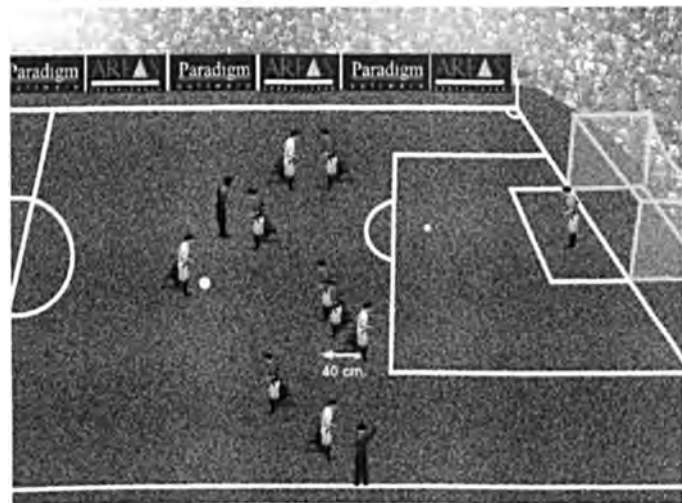


Figure 3. Offside by one metre. Belda Maruenda F. *BMJ* 2004; 329: 1471. Copyright © 2004 BMJ Publishing Group Ltd. All rights reserved.

Maruenda has calculated that the eye movements, including the latent periods, and the accommodation of the eye required to judge this situation frequently take longer to execute than the time that is available.¹² When there are only a few players in the defenders' half of the pitch (3200 square metres) and the players are close together, it is relatively easy to judge. As the relative position of the players changes, the referee's assistant has to focus on 5 different objects in turn: 2 defenders, 2 attackers, and the ball. If there are a lot of players, widely scattered, and the ball is well behind the most forward attacker when played, it is impossible to judge accurately. If the attacking player and the second last defender are moving in opposite directions, their position in relation to one another could be changing at 14 metres per second. A player, for example, can be onside by 1 metre and 100 milliseconds later be offside by 40 centimetres. If the task exceeds our limitations, the error rate will be high.

Sleep deprivation undoubtedly has an adverse effect on performance. A study published by Arnedt et al in *JAMA*¹³ showed that the performance in resident doctors during a heavy call rotation was comparable to that during a light rotation with a blood alcohol concentration of 40 to 50 mg per 100ml. Although 80

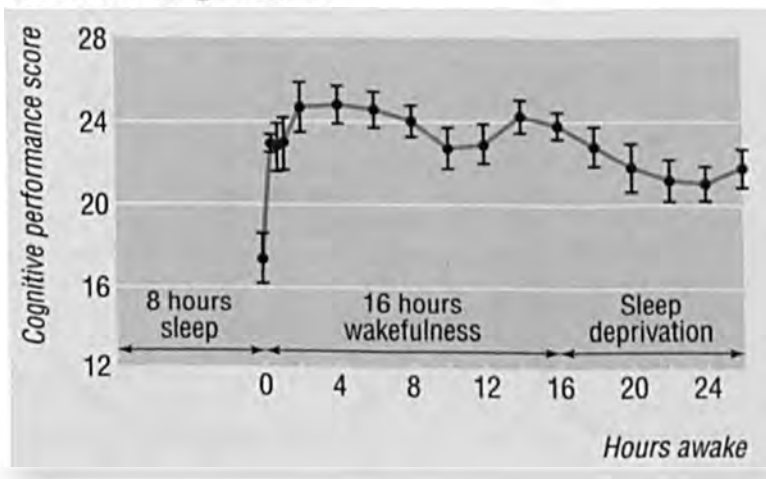
mg per 100 ml is the legal limit for driving, some impairment of psychomotor function has been shown at a level of 20 mg per 100 ml.¹⁴ Cognitive performance is at its worst, however, just after waking. Another study published in JAMA last year by Wertz¹⁵ showed that adult volunteers performed worse in the first three minutes after waking than at any other time in the next 24 hours, including after a whole night without sleep (Fig 5).

The Selby train crash in 2001 was caused by the driver of a Land Rover falling asleep at the wheel and going off the road, down an embankment, and onto the railway.¹⁶ Before he could alert the emergency services, his vehicle was hit by a passenger train, travelling at 117 miles per hour, which then collided head-on with a goods train coming in the opposite direction (Fig 6). Ten people were killed, and the driver of the Land Rover was found guilty of causing death by dangerous driving and sentenced to 5 years in prison. He had virtually no sleep on the night before the accident. This was a landmark case. It was driving while suffering from lack of sleep, a contributory factor over which he had control, that made him guilty of dangerous driving. This obviously has implications for the medical profession if a doctor makes a mistake



Figure 6. Selby train crash. Copyright © 2001 PA Photos Limited. All rights reserved.

Figure 5. Cognitive performance for 24 hours from waking. Tonks A. BMJ 2006; 332: 163. Copyright © 2006 BMJ Publishing Group Ltd. All rights reserved. Adapted from Wertz AT et al. JAMA 2006; 295: 163. Copyright © 2006 American Medical Association. All rights reserved.



during clinical work or while driving home afterwards, having had inadequate sleep.

Sleep deprivation was also judged to be a factor in American Airlines Flight 1420 crash in Little Rock, Arkansas, in 1999.¹⁷ The pilots had not slept for 17 hours at the time of the accident. The McDonnell Douglas MD-82 slid off the end of the runway on landing, crashed into a footbridge and burst into flames, killing 11 of the 145 on board. It seems that the crew had failed to arm the automatic spoiler system during the approach. Spoilers are flaps that are raised on the upper surface of the wings on touch down to interfere with the flow of air over the wings and abolish the lift effect of the wings, thereby allowing the

full weight of the aircraft down onto the wheels and the braking system. Once armed, the spoilers normally deploy automatically when the wheels touch the runway. Failure to arm the system was the error that caused the crash, but there were other contributing factors. The pilots felt under tremendous pressure from their company to make the trip despite knowing that there would be bad weather and that they were sleep deprived because of delays. They tried to fly between two adjacent thunderstorm systems and did not divert when it became obvious that they would be landing in the middle of a thunderstorm with dense cloud, torrential rain and strong cross winds. They had great difficulty finding the runway, visualising it only at the last minute, and the approach was far from perfect. External pressures had caused them to make several decision-making errors that landed them in a very difficult situation that led to cognitive overload and the fatal error. As in many accidents, there were major contributory factors and a sequence of adverse events and mistakes.

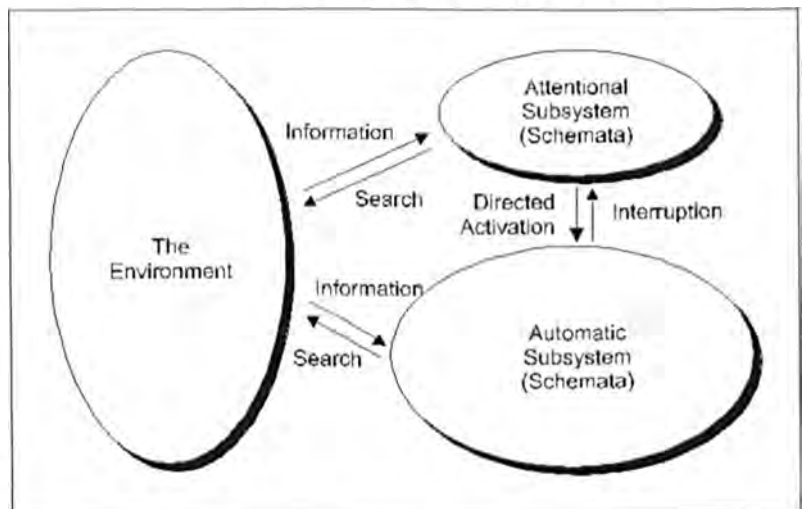
A large proportion of the errors that are made in healthcare are made in the areas of communication, decision making, and procedures. Recent work on the cognitive errors made in decision making in medicine is interesting. Dr Raymond Panko from the University of Hawaii describes an emerging model of human cognition and error that satisfies theories from a number of diverse areas of study.¹⁸ The basic elements of the model are three interacting subsystems, namely the automatic subsystem, the attentional subsystem, and the environment.

In the automatic subsystem, cognition occurs below the level of consciousness. A lot of everyday cognition occurs in this subsystem, and there is a lot of parallel operation within it. As well as overlapping parallel processes for a sequence of tasks, e.g. hitting a sequence of keys on a computer keyboard, there are also a number of competing plans for a particular action, and

one is chosen before executing the action. The system is very fast, but, if the wrong plan is chosen, an error occurs. The automatic subsystem uses a very large pool of schemata, which are organised collections of information and response patterns that are activated by very specific conditions. There are two mechanisms for selecting schemata to be activated: pattern matching, and frequency gambling. The latter is used when there is no perfect match and the schema that has been activated most often under similar conditions in the past will activate. Sometimes that is not the correct action and an error is produced. "We do something we have done many times before, rather than what we should do."

The attentional subsystem comes near to what is normally thought of as consciousness. It has powerful logistic capabilities, but it is "limited, sequential, slow, effortful and difficult to sustain for more than brief periods".¹⁹ The memory capacity in this system is limited to about 7 things at any one time. Because of the limitations, errors in memory and logical analysis occur. It is likely that the schemata in the attentional subsystem are brought up from the automatic subsystem. Another aspect of the attentional subsystem that causes errors is the use of schemata that take the form of habitual informal theories that we develop over many years. We tend to use these even when we have been trained differently in specific areas. The

Figure 7. Emerging model of cognition. Copyright © 1997 Panko. All rights reserved.



Aggregate bias	Gambler's fallacy	Premature closure
Anchoring	Gender bias	Psych-out error
Anticipated regret	Hindsight bias	Representativeness restraint
Ascertainment bias	Ignoring negative evidence	Search satisficing
Availability	Multiple alternatives bias	Sutton's slip
Base-rate neglect	Omission bias	Triage-cuing
Commission bias	Order effects	Unpacking principle
Confirmation bias	Outcome bias	Vertical line failure
Diagnosis momentum	Overconfidence bias	Visceral bias
Ego bias	Playing the odds	Ying-Yang out
Fundamental attribution error	Posterior probability error	Zebra retreat

Table 4. Cognitive dispositions to respond that may influence clinical decision making. Croskery P. Can J Anesth 2005; 52: R 1-6. Copyright © 2005 Canadian Anesthesiologists' Society. All rights reserved.

attentional subsystem also holds goals which influence automatic subsystem operation. These goals can be lost in overload situations. Under certain circumstances, it is also possible for the automatic system to interrupt and grab the attentional system and influence it. Both of these subsystems interact with the environment, which is the third subsystem. Therefore, because of the way human cognition operates, errors are inevitable. We are continually detecting and correcting errors, but it is the residual undetected errors that are important.

Dr Pat Croskerry²⁰ states that, "Decision making in anaesthesia generally falls into the category of 'human factors', or more specifically 'non-technical skills'²¹ in which the majority of errors are believed to occur.²² Importantly, these non-technical skills constitute a major proportion of the qualities on which the competence of anaesthesiologists' practice is based."²³ When presenting to the Scottish Intensive Care Society in January, Dr Croskerry described 4 strategies that are used in decision making, namely: system 1 which is intuitive, system 2 which is analytical, blends, and algorithms. The intuitive approach is used frequently in medicine. It uses heuristics which are rules of thumb, intuitions, abbreviations, simple judgements and short cuts. They are particularly prominent in the dynamic decision making that characterises the work of anaesthetists. The intuitive system is fast, operates at a low level of cognitive awareness, requires less effort than the analytical, but it is responsible for a lot of mistakes. He describes "cognitive modules" that are innate

and that have evolved in man, but they have probably not changed for about 50,000 years. These correspond to a group of biases or fallacies that are now defined as cognitive dispositions to respond (CDRs), and we have 30-40 of them (Table 4). They were developed in the simple environment of the caveman, and they are no longer adaptive in the complex environment of modern medicine. They cause errors. "Search satisficing", for example, is the tendency to stop looking when the first thing is found. Training or de-biasing can reduce the impact of these CDRs on our decision making and reduce the number of errors that we make.

The following tragic case demonstrates some common errors that anaesthetists make when in a crisis. A 37 year old female patient was being anaesthetised in a private clinic by a consultant for endoscopic sinus surgery and septoplasty. After induction, the consultant anaesthetist tried several times to pass a laryngeal mask airway but was unsuccessful. There was difficulty ventilating the lungs by facemask, despite using an oropharyngeal airway and a four-handed technique. Within about four minutes the pulse oximeter was reading 40% which was its lower limit. Attempted endotracheal intubation, after giving suxamethonium, also failed. The laryngoscopic view was Grade 4 (Cormack and Lehane). This was the dreaded "can't intubate can't ventilate" (CICV) situation. There followed multiple unsuccessful attempts at tracheal intubation, including those by a second consultant anaesthetist and the ENT surgeon. Dif-

ferent laryngoscopes were tried, including a fibre-optic flexible scope. Eventually, 25 minutes after induction, an intubating laryngeal mask airway (ILMA) was successfully passed. Ventilation improved somewhat and, for the first time, the pulse oximeter reading increased from 40 to 90%. By this time, the patient had been exposed to severe hypoxia for at least 20 minutes. There were further unsuccessful attempts at intubation using the ILMA as a conduit, during which time the pulse oximeter reading was unstable between 49 and 90%. At about 34 minutes after induction, a decision was made to abandon the procedure, and the patient was transferred to the recovery room, breathing spontaneously with an oropharyngeal airway after removal of the ILMA. The anaesthetist returned to theatre and carried on with the operating list. The patient did not regain consciousness. Her condition deteriorated, and she was transferred to intensive care in another hospital, where the trachea was intubated, with difficulty, and the lungs were ventilated mechanically. She subsequently died as a result of hypoxic brain damage.

The coroner's inquest verdict highlighted the following:- recognised guidelines not followed; too much time attempting intubation rather than oxygenation; oblivious to the passage of time; not all staff aware of the problem with ventilation; surgical airway access should have been carried out; she should have been transferred to intensive care before further deterioration; and the risk of inter-hospital transfer without securing the airway first. The most significant errors were:- failed perception of the passage of time; memory or knowledge deficit with regard to guidelines; cognitive errors in decision making and communication; skill deficits in communication and failure to use the resources of the team.

There are several ways in which the frequency and impact of errors can be reduced. It is encouraging to see that progress is being made in these areas, even though it might be slow. There is excellent advice on fatigue, and sleep deprivation, in the form of the booklets from the Association of Anaesthetists of Great Britain and Ireland entitled "Fatigue and Anaesthetists," and from the Royal College of Physicians of London entitled

"Working the night shift – preparation, survival and recovery – A guide for junior doctors." However, further research on shift patterns is still required. Training in non-technical skills should be given a substantial emphasis in the curriculum, not just for trainees. The consultants in the ENT case did not use all of the resources available to them. The team leader in Penicuik did. The Anaesthetists' Non-Technical Skills (ANTS) initiative has tremendous potential in this role, and the team at Aberdeen University and the Scottish Clinical Simulation Centre in Stirling should be commended for this programme. Good algorithms and drills, Dr Croskerry's fourth decision-making strategy, are useful in crises, as has been demonstrated in the management of cardiac arrest. If the team in the ENT case had used the algorithm produced by the Difficult Airway Society, the patient may not have died. The failed intubation drill for obstetric cases described by Dr Michael Tunstall was a good one that I am sure saved many lives. He published it in 1976 and he was ahead of his time, as he was in many aspects of his work. He was a great teacher, and his enthusiasm was stimulating. He inspired me as a student, and it was because of him that I chose anaesthesia as a career. I am very grateful to him for that and many other things, especially for all that he taught me and that I have tried to pass on to others.

Professor James Reason suggested, some time ago, that errors should not necessarily be blamed on individuals but should be seen as an opportunity to improve the system.²⁴ Several high risk organisations such as the nuclear power industry and air traffic control have been doing this very effectively. With regard to prescribing errors, it would seem that electronic prescribing might be a method whereby the system could be changed to reduce errors and improve the standard of care. This is an area that I have been involved with for several years now. However, it is also an area that has demonstrated that well intentioned and sophisticated system changes do not always produce benefit. A paper from the Children's Hospital of Pittsburgh, published in *Pediatrics* in January 2006, described an unexpected increase in mortality in the tertiary referrals transferred into their hospital after introducing a commercially sold computerised physician order entry system.²⁵ The

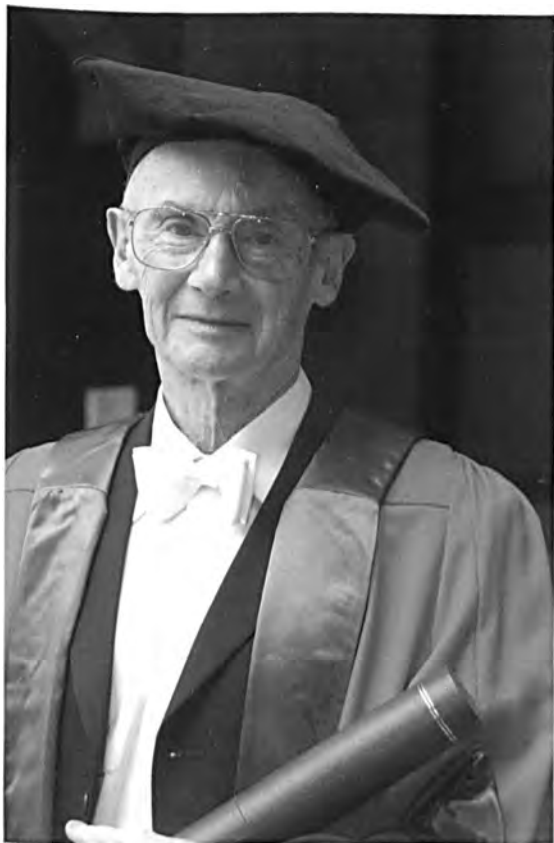


Figure 8. Dr Michael E. Tunstall

odds of mortality increased and the odds ratio was 3.3 (95% CI 1.94 – 5.55). One major problem was delay in administration of time-sensitive therapies in the intensive care unit.

Sophisticated systems may not help if they are abused or if those using them do not have sufficient knowledge. The Russian International Airways' plane crash in 1994 demonstrates this.²⁶ The Airbus A310-304 crashed in Siberia. The captain had allowed his 14 year old son to sit in the pilot's seat. The father thought it was safe because the plane was in autopilot, but the boy, by a sustained turning manoeuvre on the yoke, inadvertently disengaged the autopilot linkage to the ailerons. The plane banked steeply and then went into a steep dive. The pilots struggled to regain control of the plane. After several stalls and rapid pull-ups, the plane finally spiralled downwards and crashed into the ground. All 75 onboard died. Apparently, the

A310 has a very sophisticated system for getting the plane out of a stall. All that is required is for the pilot to take his hands off and release the yoke. The pilots either never knew this or did not remember at the crucial time.

If our systems are to be improved significantly, there needs to be improved collection of data, not just on critical incidents but also on near misses and any unwanted events. That data need to be used not just for local morbidity and mortality meetings, and root cause analysis exercises. There should be central collation. We need a better system of processing that data centrally and the use of expertise from other high-risk, high-reliability organisations in order to maximise the production of robust defences in our system. At the same time it is important not to move too much in the direction that the individual is never to blame. There must be a sense of individual responsibility and accountability. Evidence that individuals are recording unwanted events and reporting appropriately could be part of the revalidation process for doctors.

In England, the National Patient Safety Agency was established with the objective of developing a mandatory national reporting scheme for incidents and near misses, as well as assimilating other safety-related information, learning lessons, and developing solutions. Recent reports from the National Audit Office²⁷ and the House of Commons Committee of Public Accounts⁷ were critical of the progress after 5 years. Data collection is incomplete. An estimated 22% of incidents and 39% of near misses go unreported. Doctors are less likely to report than other staff groups. The taxonomy (classification system) is not uniform across the country and between countries. The World Health Organisation is developing an international taxonomy, and this should be adopted by all. A report named "Safety first: a report for patients, clinicians and healthcare managers," from the Department of Health and published in December 2006,²⁸ addresses these issues.

In Scotland, NHS Quality Improvement Scotland has concentrated on establishing and supporting local systems of reporting and processing adverse incidents.²⁹ There are links with NPSA, but per-

haps the time has not quite come to participate in national data collection and processing. To justify the effort of such an exercise, a good international and dynamic taxonomy is required. Sophisticated analysis and state-of-the-art problem solving have also to be in place. If and when these preconditions are met, collaboration with NPSA may be appropriate.

Some solutions require more or improved policies, guidelines, protocols, training, safety warnings, and check lists, but we need more smart solutions that are simple and robust. When cash dispensers were first introduced, people kept leaving their cards in the machines. This was solved by returning the card first and then dispensing the cash. Solutions like that are what we need!

As was demonstrated in the case of the driver who fell asleep and caused the Selby train crash, a mistake can be an offence in the eyes of the law. Doctors have a "duty of care" to ensure that contributory factors are minimised and drivers have to demonstrate "due care and attention". As things stand, I shall be returning to Peebles on 9th May to attend the sheriff court as a witness in the case of the car driver involved in the motor cycle accident. Unfortunately, the motor cyclist died about ten minutes after I left and before reaching hospital.

Yes, mistakes are a fact of life, but their frequency and impact can be reduced considerably by organisational development and individual effort.

Acknowledgements

I thank Dr John Henderson for a copy of the independent report and coroner's verdict for the ENT case described. Copies were distributed at a presentation given by the husband of the patient with permission to use "so that others may learn, and even more may live". I am grateful to Dr Michael Tunstall and Dr Francisco Belda Maruenda for providing images. I am also grateful to all the copyright holders for giving me permission to use their material.

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Obituaries

2007 saw the deaths of three past Presidents of the Society and their obituaries are included here. Malcolm Shaw was President in 1969 and was the prime mover behind the Newsletter of the Society, now the Annals. His obituary is written by Alan MacDonald and is an expanded version of that which appeared in the Herald.

Mike Telfer was President more recently, in 1993. The obituary written by John Vance is slightly amended from the one which appeared in the Herald and Scotsman. John refers to Mike's strength of character and positive attitude and these are apparent in the photograph kindly supplied by his wife, Louise.

Finally, Professor Sir Gordon Robson, President in 1985, also died in 2007. I have reproduced here, with permission, an obituary written by Professor John Norman and published on the website of the Royal College of Anaesthetists. I belong to a generation for whom he was not a familiar figure. Professor Norman's obituary clarifies why he was held in high regard by senior colleagues.

Malcolm Shaw

Dr Malcolm Shaw, known as Calum, who has died at the age of 96 years, was one of the old school of anaesthetists whose careers spanned astonishing changes in the practice of anaesthesia. As well as being a dedicated clinical anaesthetist, he will be best remembered for his outstanding contribution to the affairs of the Scottish Society of Anaesthetists, and, in particular, the introduction in 1960 of its Newsletter, initially a humble production, which evolved into a 60-page glossy journal, re-titled in 1989 'The Annals'.

Dr Shaw was born in Aird, Lochgilphead on 3rd February 1911, and had four brothers and one sister. He was educated at the local village school and at Dunoon Grammar School, where he became Dux. Wishing to enter the ministry, he began studies at Glasgow University, but contracted tuberculosis, requiring long convalescence in Oban, before returning to complete an MA degree, being awarded a Gold Medal in History. He then changed direction and entered Medical School in Glasgow, graduating MB ChB in 1938.



Malcolm Shaw

He served as a doctor during the war, in India and the Middle East, rising to the rank of major. After the war, he trained as an anaesthetist in Glasgow, gaining the Diploma in 1946. After training posts at the Western Infirmary and the Royal Hospital for Sick Children, in Glasgow, he became a Fellow of the Faculty of Anaesthetists in 1954, and a consultant anaesthetist at the Victoria Infirmary, Glasgow in 1956.

When he began his career in anaesthesia, induction would have been mainly inhalational, using chloroform, ether, cyclopropane or tri-chloro-ethylene, with the occasional addition of gallamine. The subsequent introduction of intravenous agents such as evipan initially and then thiopentone (given via the median cubital vein in those days), better neuro-muscular blocking drugs like curare, the use of controlled ventilation, and the discovery of safer inhalational agents like halothane, revolutionised anaesthesia, and allowed better access for abdominal surgery, and safer conditions for less resilient patients. Not all anaesthetists were able to transition from the earlier techniques to the new ones. Dr Shaw not only embraced them but became proficient in their use, and straight away taught them to trainees.

He had an orderly, logical and meticulous approach to everything he did, an ideal model for trainees. He was fastidious in his care of patients, not only visiting them the night before surgery (by no means a routine practice in those days), but also finding time to see them the day

after, normal practice nowadays, but not 50 years ago. His record-keeping was legendary: immaculate writing, two colours of ink, a small bottle of Tippex, ruler, stopwatch, and a Mayo stand to write on, were just as important as safe care. Few anaesthetists recorded such detailed notes, invaluable to any subsequent anaesthetist. He was an inveterate hoarder. Nothing was ever thrown out, every item was named and retained in appropriate boxes, which accumulated in house and garage.

He was much in demand as a dental anaesthetist, providing a superb service few could match. Patients were reassured when they met him; one lady always brought in apple tarts; 'They're his favourites' she would say. Everyone liked him.

He was Secretary and Treasurer of the Glasgow and West of Scotland Society of Anaesthetists from 1950-52, and its President in 1966. He became Secretary and Treasurer of the Scottish Society of Anaesthetists in 1957, and played an important role in the four years of negotiations between the Society and the Crown Agent in Edinburgh, regarding the procedure for reporting 'Anaesthetic Death'. In those early days a patient dying under anaesthesia had to be reported as an 'Anaesthetic Death', a misleading term implying that anaesthesia was always the cause. This of course was not the case, death most often resulting from other causes. Worse still, one or two police constables in uniform would come to interview the anaesthetist, who was usually blameless. This was more than embarrassing, the criminal overtones, which this interview conveyed, doing no good to his or her clinical reputation.

The Council of the Society set up a Sub-Committee, consisting of Dr Robert Lawrie (Perth), Dr Roy Sinclair (Glasgow), Past Presidents in 1957 and 1958 respectively, and Dr Shaw. Dr John Gillies (Edinburgh), Dr Willie Shearer (Dundee) and Dr Alfie Raffan (Aberdeen), were invited to contribute their experience to the Sub-Committee. The negotiations resulted in the form being re-entitled 'Death Associated with Surgery and/or Anaesthesia', and also introduced many improvements to the procedure for recording such deaths. Dr Shaw bore the brunt of the paper-work and the endless correspondence, and was widely praised for his painstaking contribution in the achievement of this satisfactory outcome. Perhaps it was with this in mind that he was elected Honorary Fellow of the Royal College of Physicians and Surgeons of Glasgow in 1962.

In 1960 he initiated the Newsletter of the Society, his brainchild, circulated annually to every department of anaesthesia in Scotland, as well as to every member. The first edition was a modest 20-page production, not

unlike a school exercise book, perhaps typed on his own home typewriter. It comprised a range of clinical and scientific articles, reports of meetings and other activities, forthcoming events, and obituaries. These were interspersed with numerous gobbets such as:

'For every feather I get in my cap, I have two taken out of my tail.' (overheard at the AGM)

'Nane o' yer fairy perfume.. Ah ken fine it's chloroform.' (Small boy in dental chair)

'A drug is anything which, if injected into a cat, will produce a medical paper.' (Mr Willie Anderson, Aberdeen surgeon, quoted by Dr Albert Christie, 1962)

'We hope that Dr Organe will enjoy his stay, and the frugal fare, at our modest highland Inn.' (Part of Dr John Bain's Presidential Welcome to the distinguished Guest Speaker from London at the Annual Meeting, Gleneagles, 1961. Sir Geoffrey Organe became one of the very few Knights of Anaesthesia)

'I don't like gas at the dentist's; you never rise from the chair quite the same after it, you leave some of yourself behind.' (Woman's Hour, BBC)

The Newsletter was an entertaining read from cover to cover, and did much to encourage anaesthetists working in outposts in Scotland to join the Society. The second Newsletter, in 1961, was professionally printed with a modern format. It never looked back. It fostered friendship and accord among the four regional Societies in Scotland, and evolved into a glossy 60-page Annals, providing a comprehensive record of Scottish Anaesthesia. Dr Shaw continued as Secretary and Treasurer until 1963, and as Editor of the Newsletter until 1967, and became President in 1969.

During his whole career, he helped and counselled many junior Anaesthetists. One such trainee gatecrashed an anaesthetic meeting in the Atholl Hotel, St Andrews, in 1962, not knowing what it was, and not having paid. Keeping a low profile, but stealing a cup of tea and shortbread at the interval, he suddenly felt a firm grip on his elbow, and a voice saying 'and who might you be?'. Realising he had been rumbled, he expected to be frog-marched to the pavement, but no, this was Dr Shaw, acting as good recruiting officer, (aka College Tutor) and seeing a new face in the crowd, had sought him out to make him welcome, and introduce him to colleagues who would be good contacts for the future. That trainee had unwittingly stumbled into the Annual Meeting of the Society, and had had the good luck to encounter Dr Shaw. He also found himself deprived of the 50 pence Trainee Subscription Fee, as Dr Shaw just happened to have a Membership Form in his pocket. That trainee was always grateful for the advice and the introductions he got that day: it was a turning point in his career.

Dr Shaw married Dr Julia Middleton, a general practitioner, in 1948. He was involved in church affairs all his life, being an elder in Wellington Church, Glasgow, and, after retiring, an active participant in Kirkcudbright Parish Church: he supported the Bible Society and the Deep Sea Fishermen's Mission: he was a member of Probus, and a keen gardener. He was a native Gaelic speaker with an impeccable accent, a member of the Glasgow Gaelic Society, and of the Glasgow Gaelic Choir (looking down from that Great Mod in the Sky, he would have been proud to have seen his choir winning the most prestigious award, the Lovat and Tullibardine Shield, at the recent Fort William Mod).

He was devastated by Julia's death in 2002, finding life hard, especially after breaking his hip in 2006 and he died on 28 June 2007.

He is survived by his son Graham, his grand-daughter Amanda, and two great-grand-daughters. He will be fondly remembered for his kind, thoughtful and compassionate nature, his dedication to anaesthesia and to the Scottish Society, and his gentlemanly old-style bedside manner. One of his favourite sayings, which epitomised his attitude to life, was 'Courtesy is Non-Toxic'.

Mike Telfer

Dr. Alexander Borland Meikle Telfer (known to all as Mike) died peacefully at home on the 2nd of October 2007 following a lengthy illness which was borne with his usual strength of character and positive attitude. He was 75 years of age.

Mike was the only child of Henry and Florence Telfer whose home was in the small Lanarkshire town of Bothwell. His early education was undertaken at Merchiston Castle School in Edinburgh following which, he entered the Faculty of Medicine at Glasgow University graduating in 1957. He married his boyhood sweetheart Louise Loudon, also a native of Bothwell, in August 1957, a marriage which produced two daughters, Susie and Sarah and a son, Ian.

After pre-registration posts at Glasgow Royal Infirmary and the Royal Hospital for Sick Children, Glasgow, Mike commenced training in anaesthesia at Glasgow Royal Infirmary in 1958. There followed the then obligatory National Service, most of which time was spent in Germany. On completion of National Service he resumed training in the Department of Anaesthesia at Glasgow Royal Infirmary, the department of which he was to remain a member for the rest of his professional career. Anaesthesia is a specialty which was ideally suited to his enquiring and intensely practical mind. Mike wanted to know how everything worked and the

pharmacological, physiological and high tech aspects of anaesthesia and especially intensive care always intrigued him. Following promotion through the various training grades and success in the examinations of the Royal College of Anaesthetists, he was appointed to a consultant post at the GRI in 1963.

It was at the Royal Infirmary that Mike first encountered Dr. Donald (later Sir Donald) Campbell and struck up a close friendship which lasted until Sir Donald's death in 2004. This relationship resulted in efforts from both Donald and Mike which succeeded in persuading a group of surgeons in the Royal Infirmary to give up, initially a four bed side room and subsequently a complete Nightingale ward to set up and run an Intensive Care Unit in ward 25, an achievement which says much for their skills in negotiation and persuasion. This unit has always been run by anaesthetists and was initially run by Donald, Mike and the late Dr. John Reid.

Although always totally expert as an anaesthetist it was in the allied specialty of intensive care that Mike's professional abilities came to full fruition. He enjoyed the challenge of learning and mastering the details of each newly introduced technique and each new piece of apparatus. His inventive mind produced the design for the Royal Infirmary's first cardio-pulmonary resuscitation trolley and later, the hospital's first mobile intensive care unit, a specially designed trolley for in-hospital transport of critically ill patients. This latter was soon christened "the Telfer truck". His deep knowledge of all aspects of his specialty resulted in the highest standard of patient care. It was unfortunate that, because of his illness, he was unable to visit the new, recently commissioned, state-of-the-art intensive care unit at GRI. He would have loved it.

His dedication to and profound knowledge of intensive care matters as well as his ability as an organiser led to his election in 1982 as Chairman (a position now known as President) of the UK Intensive Care Society and, in 1991, to his election as the first President of the Scottish Intensive Care Society. Accordingly he was widely sought after as a guest speaker at Intensive Care meetings both in the UK and abroad. During his time at the GRI many young doctors, most of them now consultants, trained in the specialties of anaesthesia and intensive care. All of them have cause to be grateful to Mike Telfer. His knowledge and enthusiasm and his ability as a teacher will be readily acknowledged by all of them. These qualities led to his appointment as an examiner for the Fellowship of the Royal College of Anaesthetists, a commitment which he fulfilled for some eight years. He was a past President of the Scottish Society of Anaesthetists and also of the Glasgow and West of Scotland Society of Anaesthetists. In addition, he was a



Mike Telfer

Fellow of the Royal College of Physicians and Surgeons of Glasgow.

He was always a moderately keen golfer and in more recent years developed an interest in wood turning having installed a lathe in his basement workshop. He turned out numerous beautiful wooden artefacts using this machine. Despite his many achievements and skills Mike was a most unassuming individual and it was always a great pleasure to be entertained by Mike and Louise at their home in Milngavie. The Telfers were faithful members of Cairns Church of Scotland in Milngavie and Mike, who was a DIY expert, carried out many practical tasks for the church as indeed he did at home and for numerous neighbours.

He retired from his consultant post at GRI in 1992 and when he became unwell in early 2006 he was given a diagnosis of an illness which he knew would eventually be fatal. Mike accepted this with his usual down-to-earth, dignified and practical approach and it was entirely typical of the man that, when eventually he had to use a motorised scooter to help him move around, he

familiarised himself with every minute detail of how it worked.

Mike's dedication to his professional activities was surpassed only by his devotion to and support for his family. His wife Louise, his daughters and son, sons in law and grandchildren will miss him deeply. Holidays with the family, usually in the Scottish Highlands, were highlights of his life. He had a wide circle of friends by whom he will also be very sadly missed.

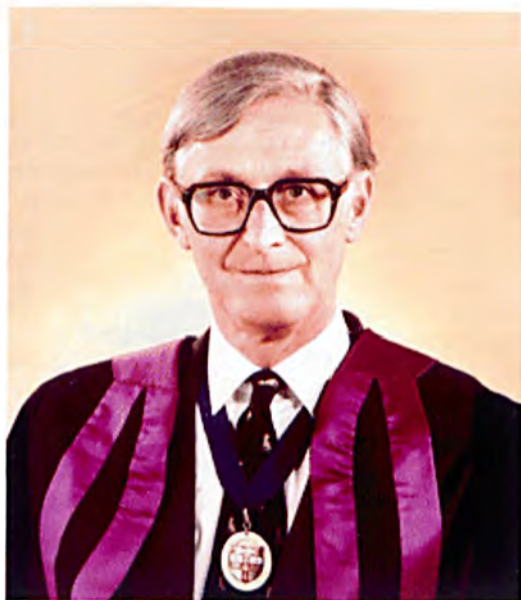
Professor Sir Gordon Robson

James Gordon Robson died on 23 February 2007, aged 85. He was born in Perth and schooled in Stirling. He qualified in medicine from Glasgow University in 1944. After a six-month house post in obstetrics in Stirling he joined the Army. Out in East Africa he started his career in anaesthetics. Leaving the Army in 1948, he trained in Glasgow and Edinburgh. He then became First Assistant to Professor Pask in Newcastle and wrote his first scientific papers.

In 1956 he accepted the Wellcome Research Chair in Anaesthetics at McGill University in Montreal. There he combined clinical work with papers on the revolutionary new anaesthetic, halothane, with basic scientific studies of the neurophysiologic effects of anaesthetic drugs.

In 1964 he returned to the UK to take the chair of the newly independent Department of Anaesthetics at the Royal Postgraduate Medical School and Hammersmith Hospital in London. Hammersmith was one of the leading departments in the world and Gordon built on its strengths. As a teaching and research centre it attracted anaesthetists from around the world as trainees, post-graduate students and visitors. Professor Robson supported all his staff and trainees both in their time at Hammersmith and subsequently.

He was elected to the Board of the Faculty of Anaesthetists, becoming Vice-Dean and then Dean from 1973 to 1976. The role of anaesthetists in the Royal College of Surgeons of England was increasing: he became the first anaesthetist to be elected Vice-President from 1977 – 1979. In that College he became Dean of the Institute of Medical Sciences and then Master of the Hunterian Institute. It was also the time when the Royal Medical Colleges realised the need to work more together: he became the Honorary Secretary of the Conference of Royal Medical Colleges. Whilst in that office he produced what may be his most important work. The *British Medical Journal* in 1976 and 1979 published two reports from him giving the criteria for diagnosing brain



Professor Sir Gordon Robson

death. These excluded the necessity for electroencephalography or for neuroradiologic investigations and have stood the test of time. They have greatly aided the work of critical care units and the work of organ transplantation.

He was the last medical chairman of the Advisory Committee on Distinction Awards. The work was conducted with scrupulous fairness. Few could dispute any final judgements. His honours were many: he was elected to honorary Fellowships of the Irish and Australasian Faculties, FRCS, FDSRCS, D.Sc (Montreal) and Presidency of the Royal Society of Medicine. He was created CBE in 1976 and knighted in 1982.

He married his first wife (Dr Martha Kennedy) in 1945. She died in 1975. His second wife, Jennifer Kilpatrick, whom he married in 1984, survives him.

The memory of Gordon Robson that remains is one of a good teacher and friend and a tireless worker for anaesthesia and medicine in general. He is one whose wise counsel was widely sought, freely given and will be sorely missed.

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.

You can help!!

All out-of-date equipment that would usually be disposed of can be used in Malawi. Please collect out-of-date equipment from your theatres and ICU.

These can be shipped out through a secure link from Glasgow city council. For further information please contact me.

If you are interested in teaching on a short refresher course any time in the future please contact me at your earliest convenience

c.connolly@doctors.org.uk



Trainees' Meeting

Peebles Hydro 20th April 2007
Choitali Guha

This was the first year that the Annual Trainees' Meeting was held at Peebles Hydro with the Annual Scientific Meeting following. The venue proved to be very popular with a great trainee turnout, fantastic lectures and a superb collection of poster presentations and trade exhibitions.

The day began with a welcome from Dr. Margaret Stockwell on her penultimate day as Society President. The first lecture was given by Dr. Grant Haldane who spoke about peripheral regional anaesthesia and the effect it has had on surgical outcomes at Hairmyres Hospital. Dr. Henry Robb talked about Physicians' Assistants (Anaesthesia) and what their role may be in future anaesthetic practice. Dr. Giles Nordmann gave a very informative lecture on the setting up of a basic military hospital during the Iraq invasion and the treatment of mass military and civilian casualties.

Peebles Hydro provided a delicious buffet lunch which was appreciated by all. This interval also allowed time for viewing of the poster presentations and trade stalls.

Dr. Neil Smart began the afternoon session by running through some difficult airway scenarios as well as teaching about upper airway and facial blocks. The next speaker was Dr. Campbell Tait, Consultant Haematologist at Glasgow Royal Infirmary, who gave some very useful tips on the management of both massive haemorrhage and haematology laboratory staff! His lecture finished with a summary of difficult cases.

The final session of the day started with a lecture on Space Medicine. This was given by Dr. Alyson Calder and involved some very interesting photos

of resuscitation scenarios at zero gravity along with descriptions of the "Vomit Comet". This session concluded with a debate between Dr. Dermot McKeown from Edinburgh and Dr. Kevin Rooney from Paisley - "In Terms of Experience, City Hospitals are Superior to DGHs". Both sides had interesting points to make but Dr. Rooney won the majority vote with his view that DGHs offer better training experience.

First prize for the poster presentation was awarded to Dr. A. Kapoor from Dumfries for his poster about central venous line slippage when both fixation devices are not used. Prizes were also awarded to Dr. A. May and Dr. K. Fraser from Glasgow for their presentations on public opinion of anaesthetists and the use of oesophageal Doppler to guide fluid therapy.

As Ewan Jaek and I have come to the end of our three year term, new trainee representatives were elected. The new representatives are Sarah Hivey and Jenny Edwards, Specialist Registrars based in Glasgow. We wish them all the very best with organising next year's meeting.

The day ended with dinner at the Hydro followed by a drink or two and an energetic ceilidh. Feedback from delegates has been very positive about the new venue for the meeting as well as the combination of the Trainees' Meeting with the Annual Spring Meeting.

Finally I would like to thank the trade sponsors and the staff at Peebles Hydro for helping to make the day such a success and I look forward to seeing you all at next year's meeting.



Giles Nordmann



Grant relaxes after an arduous lecture



Neil Smart



Campbell Tait



Alyson Calder



Kevin Rooney & Dermot McKeown



Choiti & Ewan

Tales from Africa

WORKING WITH INTERPLAST

Grant Rodney
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I was fortunate to receive funding from the Scottish Society of Anaesthetists in 2006. This part funded my contributions as a medical volunteer working with Interplast, on 2 separate two week trips. The first trip was to Ecuador in March 2006, the second to Vietnam in January 2007. The following account details this experience.

Interplast: what is it, who are they?

Interplast is an international humanitarian organization based in the United States. Their mission statement reads: "Interplast envisions a world in which no human being suffers physically or emotionally from a repairable congenital deformity or abnormality". The aim is to support local health care systems in providing sustainable plastic surgery care in developing countries, with funding, quality review, training and technical support.

Interplast was founded in 1979. At the time it was the first humanitarian organization providing free reconstructive surgery in developing countries. The organization has no political or religious affiliation. It receives no government agency support. It does not advertise for support but relies on donations from donors and volunteers. Importantly for its donors, 90% of funds raised go directly to patient care.

Interplast performs a number of functions:-
It establishes partnership with local surgeons working in developing countries; currently some 25 surgical partners with 12 permanent surgical outreach centres in 9 countries.

Educational workshops are held in developing countries each year. These cover a range of surgeries but also ancillary functions, eg speech therapy. Teaching is delivered to some 600 medical professionals each year in order to allow them to ultimately perform independent surgery locally.

Volunteer based systems allow surgical teams to travel each year to some 15-20 destinations, mostly in Asia and South America, performing free plastic surgery for two week periods.

Web based education tools are used for interaction with

surgical partners, allowing for case discussion and interaction with experts.

Volunteer trips

Teams consist of usually 10-14 people, including 2-3 surgeons, 3 anaesthetists, a paediatrician, 2 theatre nurses, 2 recovery nurses, 2-3 translators / coordinators. Trip duration is two weeks. Trips follow a set formula. This involves inward travel on the first weekend, a clinic assessment day, followed by 2 weeks of operating, and homeward travel on the last weekend of the trip. Safety and quality control are very important. Quality rather than quantity of cases is stressed. Usually some 50-70 operating procedures are performed in a fortnight. Only plastic and reconstructive surgery is performed, most of the cases are for children but there are also adult cases. Types of surgery include: cleft lip and palate repair, burns surgery and miscellaneous cases including surgery for syndactyly, accessory digits, ptosis repair etc.



Interplast 'anaesthesia work station'

Anaesthesia

Surgery is performed in local hospital operating theatres. A minimum host requirement is an oxygen supply (often large cylinders), electricity and water supplies. A large amount of equipment is transported to and fro by Interplast on all surgical trips. This includes a basic 'anaesthetic back bar apparatus' with sevoflurane and isoflurane vaporizers and portable datex monitors. Anaesthetic circuits used are 'King' coaxial circuits with Baralyme chambers, which allow low flow anaesthesia.

Drugs transported include standard anaesthetic drugs but there are no ventilators and therefore no non-depolarising muscle relaxants used. A range of airway equipment, including tubes and LMAs, IV cannulae and giving sets are taken. Locally purchased items include opioids, midazolam and intravenous isotonic fluids. Interplast carries an emergency airway bag, and an emergency drug box for managing cardiac arrest (a transportable defibrillator included), anaphylaxis, malignant hyperpyrexia and other medical emergencies. Volunteer anaesthetists often take extra equipment, additional LMAs and gum elastic bougies being especially favoured by UK anaesthetists.

Anaesthesia pre-assessment

Pre-assessment at the first day clinic is important. Children scheduled as suitable for surgery are seen by a paediatrician and anaesthetist and are screened for intercurrent disease, especially for upper respiratory infection and for congenital abnormalities. Children and adults tend to be small by developed world standards and are often malnourished. All children have vital signs measured pre-operatively, including O₂ saturation on room air. They also have haemoglobin measurement using a haemacue device and this is of particular importance for altitude working and before major palatal and burns surgery. Interplast has a 'low risk approach', so intercurrent URI or co-morbidity excludes children from surgery by a visiting team though efforts are made to refer



to host country specialist centres, if these exist.

Anaesthesia practice

Two surgical operating tables run, on one trip this was 2 adjacent operating theatres, on another it was 2 tables in one theatre. This was remarkably well tolerated by patients and staff. Noise and heat can be a problem but proximity of staff for support and advice is very helpful. There are no anaesthetic nurses, the single Interplast theatre nurse supports anaesthetists at induction, and then participates in running of cases, including patient positioning, ensuring instrument availability, and helping locally used scrub nurses.

There is an anaesthetist at each operating theatre table. The third or 'floating anaesthetist' supports cases at start and finish, fetches and cleans equipment, and supports the 2 recovery room nurses and the paediatrician who staff the recovery room. Essentially the function is that of anaesthetic assistant. Ensuring patient readiness and fasting is a challenge in developing country environments, where cultural practice is to take meals before surgery and where prolonged fasting in often hot conditions may lead to dehydration.

Usual paediatric induction practice is by inhalational induction with sevoflurane. This is due to a combination of lack of topical anaesthesia supply for intravenous induction, and communication problems with much demand for the 2 Interplast interpreters. On one trip we used routine premedication with oral midazolam, which helped ensure smooth inhalation induction of children in a roomful of strangers without their parents present.

Maintenance of anaesthesia was via either an endotracheal tube or a laryngeal mask airway, after switching to isoflurane and using low flow anaesthesia to maintain volatile and oxygen supplies. It is remarkable how well long periods of spontaneous ventilation are tolerated.



The most challenging cases were the palatal surgery cases in all ages of children. The challenge was to provide analgesia and a smooth awakening for children, balancing perceived sensitivity to opioid drugs and risk of excessive sedation and airway obstruction, with a need to avoid coughing, crying and an increased risk of bleeding. This was particularly challenging given the ward environment. No monitors were available on wards, and nursing staff were scarce, if available at all. Interplast staff including a surgeon, paediatrician and interpreter performed a postoperative round late each night to check on patients. A nominated team was available each night for re-operation and other emergencies.

Trip workload is dependent on patient numbers attending the clinic which is dependent on word of mouth and on information dissemination via the local media. We treated 55 surgical patients in Ecuador and 52 in Vietnam. About 80% were children. Both trips were very successful. There were few complications, no cases returning to theatre but difficulty with bleeding and intermittent airway obstruction in recovery occurred in a handful of postoperative palatal surgery patients. We used a useful technique for patients with difficult airway due to burns scar contracture of head and neck. This involved use of intravenous ketamine with small doses of midazolam, infiltration of scar tissue with lignocaine and adrenaline, followed by contracture release before inhalational deepening of anaesthesia and definitive airway management.



Advantages of work with Interplast

Patients: in all societies, suffering from cleft lip and / or palate is associated with stigma. Opportunities for school and work may be limited, and individuals risk being disowned and outcast by their families and society, simply because of a disfiguring appearance. For children with cleft palates, speech impediment is a major issue with speech and learning affected. The grati-

tude and joy of families seeing their children for the first time after their repaired cleft lip surgery, is very rewarding and humbling. Similarly, adults and children with burns can receive reconstructive surgery that alters their appearance, or as importantly, restores functional mobility.

Staff: there are opportunities to liaise with local staff from hospital administrators to ward and operating theatre doctors and nurses. Although Interplast travels as a team to perform surgery as a team, they do rely on local staff to provide theatre nursing assistance. The ultimate aim is to encourage and train local surgeons to develop an interest in this work and to nurture and support them. In Ecuador we were able to attend the local medical school and give presentations covering paediatric life support and recognition of illness, burns care and aspects of airway management.

The Interplast volunteer: there are a number of advantages for individual volunteers. Firstly there is opportunity to practice anaesthesia in 'unique and different environments'. There is also potential for challenging cases involving small children and also 'difficult airway cases'. The environment, whilst different, takes one out of a comfort zone of modern anaesthetic equipment and support. At the same time, familiar drugs are used and techniques are not that far removed from 'usual UK practice'. Interplast's organization and experience provides support and structure for individuals. The trip duration (two weeks) is manageable from a full time job and some trusts allow paid leave for this work, partly or in full. Trips offer a unique opportunity to join a group of strangers and rapidly develop working relationships and a team ethos. On both of my trips the teams worked closely together, driven by a common desire to get on with the work. Other qualities required are those of flexibility and adaptability to different environments. Self reliance is also very important, within a team framework. The lack of dedicated anaesthetic assistance and the role of the floating anaesthetist in providing 'anaesthetic support' are very valuable in terms of encouraging self reliance, awareness of the working environment and thorough checking of equipment and readiness. These are qualities that we sometimes take for granted in our Scottish working practice, given the skilled assistance we have. If nothing else, work in developing country environments makes one appreciate the excellent working conditions we have in Scotland. Finally there is opportunity to travel and experience different cultures and environments, albeit briefly.

Disadvantages of working with Interplast

Patients: only relative small numbers of patients can be seen and treated during Interplast volunteer trips. No overall impact on the health of children and the population is possible. Overall there is minimal direct impact

made on local health care systems. It is also relatively expensive for volunteer trip procedures, approximately \$750 per operation compared with \$250 per operation if surgery is performed by local surgeons with Interplast funding and support.

Staff: Interaction with local staff may be limited, with cultural and language barriers an issue. Overall the opportunities for interaction and teaching local staff were less than I had anticipated.

The Interplast volunteer: many of the advantages, the excitement of meeting and working with strangers, and in unusual situations, are also stressors. This can be compounded by being away from home and family, and by being tired and jet-lagged. The countries visited tend to be hot and humid but can also be cold and at high altitude. Health risks are sometimes present from travellers diarrhoea to malaria but are generally avoided with simple precautions.

Conclusion

I think that the benefits of working with an organisation like Interplast greatly outweigh the disadvantages. I thoroughly enjoyed my working experience with Interplast and would highly recommend this to others. It offers the opportunity of performing anaesthesia for children who would not otherwise receive this surgery and would suffer lifetime disadvantage. It also offers opportunity to challenge one's skills and ingenuity and to enjoy opportunities to develop teamworking practice and interaction. And finally it is a refreshing and revitalizing experience away from the daily routines of an NHS hospital.

I would like to thank the Scottish Society for part funding my Interplast trips to the tune of £1000. I would also like to thank NHS Tayside for their support in contributing a week of paid leave to each of my two trips.

Report on Conference of Society of Anaesthesiologists of Zambia, University Teaching Hospital, Lusaka. October 10-12th 2007.

Jo Thorp

The congress was convened by Dr William Daka, President of the Society of Anaesthesiologists of Zambia. Dr Daka works in Mufulira in the north of Zambia and the conference was held in Lusaka, so this was a really remarkable achievement. It would not have been possible without local arrangements being splendidly coordinated by Mr Daniel Banda, Senior Clinical Officer and Acting Head of the School of Anaesthesia. Liaison with the Ministry of Health was through the efficient services of Mrs Naomi Banda, Clinical Policy Analyst at the Ministry of Health.

The conference was officially opened by the Minister of Health, Brigadier General Mr Brian Chituwo with Dr Simpungwe, Director Clinical Services at Ministry of Health, and Dr Peter Mwaba, Managing Director UTH, in attendance. It is heartening that the Ministry of Health has taken interest in the education of anaesthetists in Zambia within the last year. The attendance of delegates was sponsored by their hospitals with the approval of the Ministry of Health.

The conference was held in a large newly converted room above the library in the University Teaching Hospital. This proved to be well suited for the purpose being spacious and light with large opening windows permitting a breeze; air conditioning units were also provided. There were dedicated washrooms within the area and kitchen cum dining facilities were adjacent. Three course lunches appeared on schedule and tea and coffee breaks were accompanied by irresistible freshly baked scones and samosas. On this occasion, there were also trade stands and representatives in attendance with information, displays and samples.

In total, 47 Clinical Officer Anaesthetists and 10 Physician Anaesthetists were able to attend. Some delegates had travelled long distances in less than comfortable transport to attend the meeting. The delegates sat at three tables positioned on three sides of a rectangle – a sleep deterrent layout as drooping eyelids are apparent to all. Equipment for audio visual lectures was provided and functioned well, with technical assistance on hand for a hiccup with the microphone.

Formal lectures were allocated to Dr Anthony Chisakuta, Dr Dev Mahtani, Dr, Marianne Senekal, Dr Emma



Akapelwa Chisakuta (Barrister), Dr William Daka, Dr Dixon Tembo and Dr Jo Thorp. Two specialist lecturers for Paediatric topics and two for Obstetric topics was useful in fielding questions. Dr Christina Catala (from Kitwe) gave an interesting presentation on a working visit to Italy. Lively contributions from the floor from both Physician Anaesthetists and Anaesthetic Clinical Officers confirmed interest in the subject matter provided. The format of submission of written questions was helpful in avoiding difficulty hearing a distant questioner or needing a runner with the microphone. It also provided anonymity for the questioner and resulted in a wealth of questions which highlighted problem areas in addition to being helpful in identifying areas where greater depth would have been of interest. In an open forum, some of the contributions from the delegates could only be described as rivetting.

On the final day, PowerPoint presentations were downloaded to a computer for printing and distribution. A challenging quiz devised by Dr Dixon Tembo generated the usual enthusiasm, laughter and appreciation of some small prizes. All delegates were thrilled to receive a copy of the Oxford Handbook of Anaesthesia courtesy of the Overseas Anaesthesia Fund of the Association of Anaesthetists of Great Britain and Ireland.

Zambia, Anaesthesia and Anaesthetists

Zambia has a population of about 11.5 million and is a poor country with age expectancy of around 38.5 years. Infant mortality rate is high in rural areas and could be 100 per 1,000 live births. HIV / AIDS and TB are common and presumably anaesthetists are not immune. One quarter of the population live either in Lusaka or in the industrial copperbelt in the north. Copper and other mining make substantial contribution to the economy and the price of copper has risen in recent years. Substantial improvement in Lusaka was manifest in the last five years; poverty is less evident and money spent on

infrastructure is apparent. It is understood that debt cancellation and a new agreement with IMF has made this possible. There are unquestionably enormous demands on a limited health budget for prevention strategies, primary care in addition to acute care but, anaesthetists, working as they do in hospitals, appear to have noticed little change in their working environment thus far.

The University Teaching Hospital (UTH) in Lusaka is a very busy hospital with around 2000 beds but there are times when bed occupancy is 2-300%. Most hospitals in the country including UTH suffer from fluctuating shortages of staff, equipment and drugs. It is acknowledged that there is an ongoing brain drain - each year trained Clinical Officer Anaesthetists opt to take up alternative employment, to work in the private sector or to leave Zambia to work in adjacent countries or further afield.

There are currently 15 Physician Anaesthetists (five Zambians and ten from the rest of the World) working in Zambia; the great majority of anaesthetics in Zambia are given by the 150 Clinical Officer Anaesthetists. The training programme for Clinical Officer Anaesthetists appears to be attracting high calibre applicants and only qualified Clinical Officers are currently on the training programme. After completing two years of training, Clinical Officer Anaesthetists may be posted to remote areas where they work largely on their own with little or no assistance. Further educational opportunities are limited apart from conferences such as this one which they may attend on a rotational basis. Although MMed in Postgraduate Anaesthesia has been developed in nearby countries, this has not yet happened in Zambia.

The anaesthetists feel undervalued and working conditions appear to have changed little in the last few years. Not all locations have two anaesthetists; on call emergency work is frequent for all. As we know, an anaesthetic, general or spinal, involves putting the patients' basic life support systems into jeopardy - airway, breathing and circulation may be compromised simultaneously and require the skill of the anaesthetist, working with less than minimal monitoring and resuscitation resources, to keep patients alive. There is little physical or moral support when dealing with the flow of sick patients who have often deteriorated over long distances to the District Hospital or for the sometimes harsh aftermath when a sick patient succumbs in difficult circumstances. Given the lack of equipment, items which don't work as they should, combined with difficulty in repairing malfunctioning equipment, limited resources of drugs, fluids and disposables, it is evident the anaesthetists working in Zambia are a remarkable, resourceful and resilient group of healthcare professionals.



Comments

It is to be hoped that fruitful discussion can continue between the Minister of Health and Zambian anaesthetists, both those working in Zambia and further afield. Hopefully there will be some progression in the near future to retain the current workforce of talented anaesthetists and to increase the contribution to healthcare and education that could be made by Physician Anaesthetists. In the longer term, incentive will be needed for those currently in training to remain, to learn to teach others and to develop the specialty of anaesthesia in Zambia and thus expand the range of surgical options and healthcare for Zambians.

Dr Senekal (University of the Free State, South Africa) could envisage research opportunities for Physician Anaesthetists from South Africa. Useful information might be readily obtained from such projects. It will be interesting to hear from Dr Senekal if this makes progress.

Continuing educational opportunities for Clinical Officer Anaesthetists in the form of regular courses is appropriate. Apart from the programmed items, the meeting provides a forum for a useful exchange of problems, ideas and solutions. Smaller regional meetings as have also occurred fulfil this function as well and might only require a couple of physician facilitators. If the same number of Clinical Officers were released to attend a similar conference on an annual basis, each would be able to attend once every three years.

Access to a computer has increased in the last few years making the "Anaesthesia Resource" CD a unique and invaluable aid for these anaesthetists; distribution of the next version (being launched in the Spring) to those

entitled will be a challenge. The internet would be a valuable educational resource but, for the average Clinical Officer Anaesthetist, the cost remains beyond reach given other subsistence demands. Perhaps in time, it might be possible to gift credit for internet access to selected web sites so that an anaesthetist working in privileged circumstances could enable educational access for one in a less favourable situation.

A better system for locating and for sending replaced items of medical equipment from U.K. to Zambia would not go amiss. Twinning might engender greater interest than sending items into the unknown. Two non-invasive blood pressure monitors donated to the School of Anaesthesia for teaching purposes in theatre caused considerable excitement. Neighbouring Malawi continues to benefit in multiple ways from the Scottish/Malawi collaborative agreement (this includes funding provided by the Scottish Executive for the shipment of goods and equipment) and from the Clinton Hunter Development Initiative. If there are similar schemes in existence for healthcare in Zambia, it would be useful for them to become more widely known.

Thanks

The visitors greatly appreciated the sustained efforts of their Zambian hosts. All arrangements were carefully thought out and the visitors were well catered for, chauffeured round and entertained on two very different evenings out. Considerable thought, time and effort had gone into organising and executing this event, successfully providing quality education for the spectrum from trainee Clinical Officers to experienced Physician Anaesthetists, though the people whose education was broadened the most were the visitors.

The Scotland/ Malawi Anaesthesia Project Episode 2- Building an Infrastructure. Dr Catriona Connolly Consultant Anaesthetist, Ninewells.

The Scottish missionary and explorer, David Livingstone forged strong cultural and political links with Malawi in the latter half of the 19th century. A new chapter in the relationship between these two countries began with the launch of the Scotland Malawi Partnership in April 2004. Today, networks between healthcare workers in the two countries are strengthening as a result of the hard work of committed individuals in many medical and nursing specialities.

This article describes the processes involved in organising 16 anaesthetists, 2 emergency medicine doctors and 2 resuscitation training officers from Scotland to provide a programme of ongoing training for those responsible for the delivery of anaesthesia and intensive care in Malawi.

Malawi has only three physician-anaesthetists to serve an estimated 13 million people, a population approximately double that of Scotland. As a result, the majority of anaesthetic care is provided by non-medically trained Anaesthetic Clinical Officers (ACOs) who are highly motivated and manage to run a clinical service despite extremely difficult circumstances without the resources we so often take for granted in the NHS.

Facilities in Malawi vary enormously between hospitals - most are district general hospitals, some without basic monitoring such as pulse oximetry. A few centres pro-

vide basic critical care facilities with an *ad hoc* mixture of ventilators, pumps and a limited supply of life-saving drugs and even the larger 'teaching' hospitals have only occasional access to central lines and inotropic support. As part of our trip we were invited to the local intensive care unit in Blantyre where, despite the limited resources, they treat neonates and adults alike with conditions ranging from gastroschisis to multiple trauma.

In the obstetric units, a single midwife may be expected to manage an antenatal ward with up to 80 women or a postnatal ward with up to 60 mothers and babies. Under these circumstances it is clearly impossible to closely monitor seriously ill women and tragically many die unobserved, due to complications of eclampsia, massive haemorrhage, sepsis and malaria.

In last year's Annals I reported on our first refresher course in obstetric and paediatric anaesthesia and trauma management. This was delivered to 16 ACOs taught by four anaesthetists from Scotland using an Advanced Life Support Group (ALSG) and Advanced Trauma and Life Support (ATLS) training model. The course was very well received and the delegates were keen to participate in similar courses in the future.

In collaboration with Mr Cyril Goddia, Head of the School of Anaesthesia in Blantyre, we began the process of building a Malawian faculty to ensure that after all our efforts the refresher courses become self-sustainable. The first step in this process involved inviting some of last year's most promising delegates to become instructor candidates.

After successfully raising £33,000 to fund this year's project, a faculty of 20 instructors was subdivided into four separate faculties to cover the clinical courses and an inaugural "Teach the Teachers" course. 19 of the faculty are currently working in Scotland and one brave SpR from Oxford joined the ranks.

We ran 3 three-day courses concurrently comprising obstetric anaesthesia, paediatric anaesthesia and intensive care medicine. After completing one course, most of the delegates rotated through the two remaining courses with a compensatory 'rest day' between each. Four potential instructors attended a one-day "train-the-trainers" course during the first 'rest day'. This course was designed by Kate Grady on behalf of the Advanced Life Support Group in con-



junction with the Liverpool School of Tropical Medicine and was adapted for our use by Brian Carlin, Deputy Director for Education at BASICS (British Association for Immediate Care, Scotland). The four instructor candidates were supported and assessed whilst they taught on their remaining two courses.

Over the two week period we taught 41 ACOs, 6 intensive care nurses, 3 ward nurses and 13 midwives. All of the content and material of the courses was chosen after close communication with the Head of the School of Anaesthesia. The course format consisted of interactive lectures, scenarios, tutorials and small group discussions. The delegates were, on the whole, well-read and had a good grounding of basic principles and practice of anaesthesia. Their experience varied enormously – some wanting basic practical knowledge and some (mainly from the hospitals with some form of critical care) were keen for more in-depth discussion of issues such as Adult Respiratory Distress Syndrome (ARDS) and sepsis. Our trip coincided with the introduction of defibrillators to the country (donated by Lanarkshire Health Board), therefore we spent a considerable amount of time teaching safe defibrillation. In addition, the blood transfusion service has recently started to produce blood components, so we added a session on blood component therapy. Feedback was obtained during and after each course and we constantly adapted the content to try to meet the needs of delegates.

The delegates were enthusiastic in their participation and their wish to share new knowledge with colleagues back at their base hospitals. They were all supplied with a textbook for each course as well as a CD with copies of all the slides used in lectures on the course (produced and copied by the Wrathall/Stott printing press on the final evening of the course!). In addition, some protocols from our base hospitals were taken as templates to be adapted in their own departments.

I would like to thank all the faculty members who worked so hard before and during the course. Some took annual leave to come and teach for two weeks. Others were granted special leave from their hospitals and we are very grateful for that. All faculty members funded themselves, although we hope to be able to reimburse some travel expenses.

It would not have been possible to run these courses without significant contributions from our sponsors. I would like to formally thank the Scottish Society of Anaesthetists for the generous donation of £2,000. This money contributed towards the travel and subsistence costs for the 54 candidates and the shipment of materials and textbooks to Malawi.

If you are interested in teaching on a refresher course, or would like more information about the Scotland/Malawi Anaesthesia Project, please contact me: Dr C Connolly, Consultant Anaesthetist, Department of Anaesthesia, Level 6, Ninewells Hospital, Dundee, DD1 9SY.

If you would like to make a donation for our next course please send a cheque, made payable to "Scotland/Malawi Anaesthesia" to Dr Pamela Johnston, Treasurer, SMAP, Department of Anaesthesia, Level 6, Ninewells Hospital, Dundee, DD1 9SY.

I would like to take this opportunity to acknowledge our donors: Scottish Society of Anaesthetists, Scottish Intensive Care Society, Scottish Government Humanitarian Health Fund, Royal College of Anaesthetists, Association of Anaesthetists of Great Britain and Ireland, Syner-Med, Almond Anaesthetic Group, Crosshouse Hospital Intensive Care Unit, Newport-on-Tay Charity Ceilidh, "Swig and Jig" Charity Ball, sponsored sporting events and personal donations from friends, family and colleagues. 100 sets of theatres green were donated by Lojigma International Ltd.

Faculty members.

Catriona Connolly (Dundee), Brian Carlin (BASICS Scotland), Colin Donald (Emergency Medicine, Dundee), Hilary Edgcombe (Oxford), Chris Hawksworth (Crosshouse Hospital), Jacqui Howes (Inverness), Drew Inglis (Southern General, Glasgow), Pamela Johnston (Dundee), Barry Klaassen (Emergency Medicine, Dundee), Caroline McQuillan (RTO Stirling), Rose McRobert (Glasgow Royal Infirmary), Sam Moultrie (St John's, Livingston), Vince Perkins (Dumfries), Richard Price (Southern General), Michaela Salvadore (Aberdeen), Steve Stott (Aberdeen), Jo Thorp (Monklands), Lyn Walton (Dundee), Nigel Webster (Aberdeen), Wayne Wrathall (Dumfries).



Bags of equipment and gifts for distribution to delegates at the end of the course.



Peebles 2007

Peebles Hotel Hydro was again the venue for the Annual Spring Meeting which saw radical change in 2007 (or at least *a* radical change). The Annual Trainees' Meeting was held in the Hydro on the Friday in the hope that some trainees might want to stay on for the whole meeting and so infuse some new blood. Choiti Guha provides a full description elsewhere. In the last Annals, Steven Lawrie expressed the hope that moving the date of the Trainees' Meeting might encourage intergenerational mixing. Did that happen? I couldn't possibly comment.

The social programme began on Friday. The afternoon saw the golf competition held at Peebles Golf Club with John MacKenzie emerging victorious. David Gerber, husband of our new treasurer, won the booby prize. The second SSA Peebles 5K took place later that afternoon and was keenly supported with Alex Patrick and Ewan Jack jointly winning first prize. I was given the task of recording the participants' times but my performance failed to reach its usual standards. That information is lost forever.

The more academic part of the meeting took place on Saturday. Harry Burns, the Chief Medical Officer, spoke in mesmerising fashion on Saturday morning and was followed by the Registrars' Prize (oral) Presentations. They were all of a high standard. The AGM followed and witnessed Alf's elevation to President while John McClure was elected Vice-President. There were also a few Council changes – Sue Midgely took over from Charles Wallis in Edinburgh, Ian Johnston replaced John May in Inverness and Crawford Reid replaced Andy Woods in Forth Valley.

Saturday afternoon provided further grist to our collective intellectual mill. Alf Shearer chaired the afternoon session and also gave a fascinating Presidential Address on the topic of human error. He was followed by Tim Walsh who delivered a comprehensive account of transfusion practice in 2007. The scientific part of the day closed with Alf presenting the Registrars' Prizes. Martin McCormick won the second Donald Campbell Quaich (as donated by his widow, Kay). Kevin Fitzpatrick and Shona Fraser received second and third cash prizes donated by GE Healthcare.

Meantime, the social programme continued relentlessly. A beauty salon demonstration in the morning was a particular highlight for me and laser clay pigeon shooting a great success in the afternoon with Elizabeth McGrady edging into first place. A number of Society members took a small refreshment in the evening and some dancing followed.

The 2008 Spring Meeting at Peebles will be from Friday 18th April to Sunday 20th April with the Trainees' meeting held on the Friday as per 2007.





5K entrants



Alex Patrick claims joint first prize for the 5K.



Attracting attendees to the industry stands—some creative thinking



Dr Kapoor receives first prize for the trainee poster competition



The President is piped in



Margaret hands the Presidential chain of office to Alf



Dr May, another poster prize winner



The judges of the Donald Campbell Quaich—Leo Strunin and Prof Tony Wildsmith



Keynote lecture

Blood transfusion: where are we and what should we do?

**Tim Walsh, Consultant and
Honorary Professor, Edin-
burgh Royal Infirmary and
Edinburgh University**



Introduction

In the past it has been widely assumed that blood transfusions are at best life saving and at worst do little, if any harm. In Scotland, a relative surplus of donors meant that we as clinicians did not need to worry about the supply of blood. However, things are changing. Several factors are reducing blood availability (see table 1). In addition, blood is becoming more expensive to produce as a result of universal leucodepletion, ever-increasing numbers and complexity of viral testing and screening and higher costs associated with implementing the European Union Blood Directive, which sets out standards for the production and management of the chain of blood from donor to recipient. At the same time another development could dramatically decrease blood availability. The nvCJD disaster means that the donating public could transmit the disease via blood transfusions. Universal leucodepletion was introduced to decrease this risk, but is unlikely to completely remove it. Cases of transmission to humans via blood are now confirmed in the UK, leading to a drive to develop a

reliable test for prion particles that could be used to screen blood donations, or filters to remove prion particles. These may become available in the next few years, and will likely be implemented by Government. Although the absolute numbers of donors excluded due to positivity may be small, the concern is that many donors will not come forward because of fear of the implications of a positive test.

What has been achieved in Scotland?

In Scotland, significant investment has gone to initiatives to reduce blood use and blood wastage. These are now reaping real benefits.

The Better Blood Transfusion Programme (www.learnbloodtransfusion.org.uk): This well-funded programme had the aim of decreasing blood use in Scotland by 10% over 3 years and is likely to achieve the goal in 2007-08 (figure 1). The project is managed centrally, but employs a network of transfusions practitioners in virtually all Scottish

Table 1: Factors decreasing the availability of donor blood

Factor	Comment
Donor exclusions	Previously transfused individuals Increasingly stringent screening criteria
Progressive reduction in donor numbers	Lifestyle changes; changes in individual priorities
Aging population	

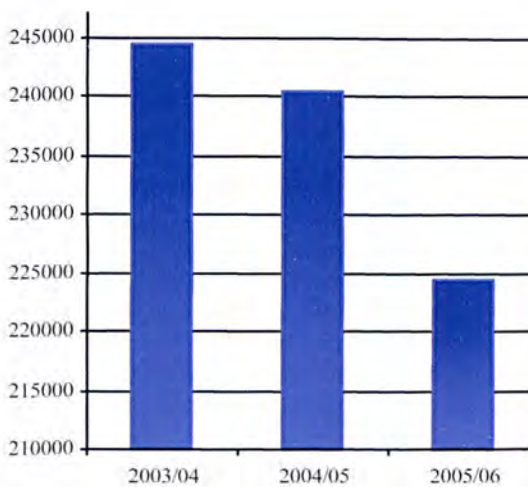


Figure 1: trends in the numbers of red cell units supplied to Scottish Hospitals from 2003 to 2006. There has been an approximately 9% decrease over this time period.

hospitals who support local and national initiatives. Each hospital also has a lead clinician to champion the programme, support the projects, and liaise with the hospital transfusion committee. A comprehensive training package concerning safe blood transfusion has been developed and is becoming a mandatory competency for trainees, and even consultants in some hospitals. Anaesthetists have been closely involved with many of the most successful initiatives, including review of maximum blood ordering schedules (MSBOS) for surgery, implementation of evidence based restrictive transfusion triggers for perioperative patients, developing perioperative cell salvage programmes, and introducing near patient testing of haemoglobin and coagulation. The programme has potential funding for projects, so it is worth contacting a transfusion practitioner if local support is needed.

Blood Express: Until recently, a significant amount of donor blood was wasted by never being transfused prior to expiry after 35 days of storage. At a time of increasing blood shortages this was unacceptable. The Blood Express project has created a national strategy to coordinate blood use and transport it actively to meet demand. Less blood is held in hospital blood banks, as better

data concerning use are collated and available. This has dramatically reduced laboratory/blood bank wastage. Clinical wastage can also occur, through blood being left out of the cold chain or opening bags that are not subsequently transfused. Education of staff, rationalisation of blood fridges, and the introduction of electronic issue for surgery (rather than blood in the operating theatre) have all had an impact on clinical wastage in many hospitals. The transfusion service now feeds back wastage rates at regular intervals to individual hospitals to track achievements and rapidly identify problems. Anaesthetists need to work with colleagues to support and implement these initiatives.

Emergency Blood Planning: All hospitals should now have an emergency blood plan to deal with an acute blood shortage. A green, amber, red system is in place to denote the current state of the national blood supply, and guidelines exist for hospitals indicating how to react to each level. At all times initiatives to minimise blood wastage and optimise perioperative blood use should be in place and regularly reviewed by the hospital transfusion committee and better blood transfusion programme. In the event of red alert supplies to hospitals will decrease substantially to 40% of normal levels (an amber alert will decrease stocks to 67% normal levels). The magnitude of the decrease is in part determined by existing wastage rates, such that hospitals with low wastage rates (<5%) are "penalised" least. A plan should have identified how blood supply for emergency transfusions, such as trauma, obstetric, and gastrointestinal haemorrhage can be sustained. This usually involves cancellation of major elective surgery, particularly cardiac and orthopaedics. In many hospitals this could prove inadequate and "policing" of all transfusion requests could be the only realistic method of ensuring blood is available to treat life-threatening haemorrhage.

Where does blood go?

An ongoing project in Scotland, the Scottish Transfusion Epidemiology Project/Database, has linked blood bank to Information and Statistics Division Data and can now produce reports as to where blood is used. This is currently being rolled out to hospitals, which are receiving reports for blood use by surgical specialties, by operation and

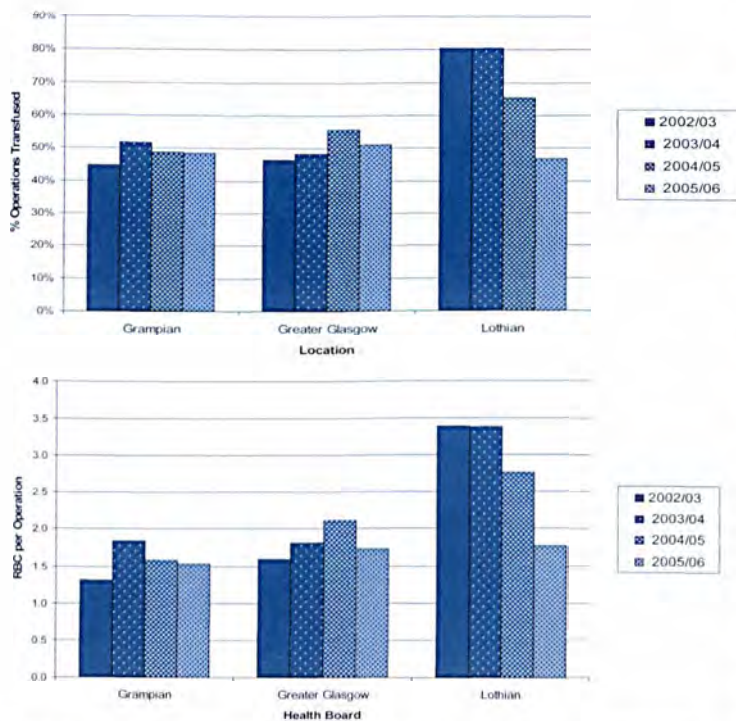


Figure 2: trends in the proportion of patients transfused for primary CABG surgery and the mean number of red cell units per case in the three major Scottish centres 2002-2006.

even by individual surgeon (anaesthetists are not currently identified). These reports are intended to provide comparative data between hospitals (and potentially individuals) and are useful for identifying “outliers” where interventions may be needed. Although such data can be seen as a threat by

availability of perioperative cell salvage. National data from the STED data base allowed the effect to be tracked, which showed dramatic reductions in both the numbers of patients transfused and the volume of blood received (figure 2). These data helped to ensure the programme continued, re-

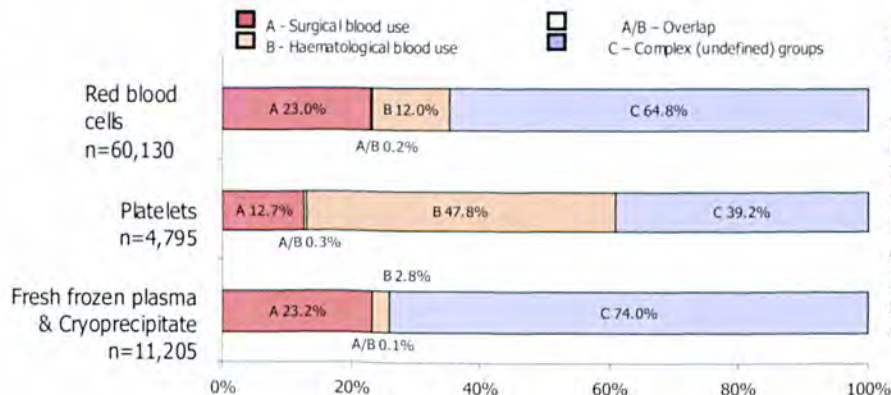


Figure 3: the fate of red blood cells, platelets, and fresh frozen plasma/cryoprecipitate in Scotland. Data indicate that >60% of red cells are transfused to a group largely comprising general medical patients. Data from K Biggin PhD thesis, Edinburgh University 2007.

ceived management support, and stimulated further audits of specific aspects of the transfusion process. For example, it was shown that despite administering less blood, the introduction of cell salvage increased the number of patients discharged home with a haemoglobin concentration >10 g/dL from 45% to 70% ($P < 0.0001$).

Emerging data suggest that most of the reduction in blood transfusions have occurred in surgical patients, most likely a result of using restrictive transfusion triggers, improved surgical/anaesthetic techniques, and increased use of perioperative blood conservation technology such as cell salvage. A study carried out in NE England published in 2002 suggested that about 40% of blood was transfused to surgical patients. Recently completed work using Scottish data suggests that this proportion is falling (figure 3). In this study <25% of blood was used for surgery. By far the largest use is in complex undefined cases, which equate to medical patients. Blood use in “general medicine” is now the “black hole” where blood is disappearing. Research in the future needs to concentrate on understanding this area better. One major problem is the lack of evidence concerning when to give blood transfusions, especially to non-bleeding patients. Despite blood transfusion being one of the most fundamental of medical therapies, the evidence base from well designed trials is remarkably weak.

When should we give blood to non-bleeding patients?

Available data suggest that <20% of blood is transfused to patients with life-threatening bleeding (table 2). For these patients, blood is clearly a potentially life-saving therapy. The remainder of patients receive blood for non-life threatening bleeding or when they are anaemic but not hypovolaemic. Even after excluding patients with marrow failure or a haem oncology diagnosis it is clear that the majority of blood transfusions are to patients in whom the decision to transfusion is based largely on the haemoglobin value and the symptoms suffered by the patients. Given the lack of specificity of most symptoms of anaemia, such as fatigue and breathlessness, it is likely that most clinicians use the haemoglobin value as the main “trigger” for blood transfusion.

Transfusion triggers

Most of the high quality evidence concerning transfusion triggers originates from the critical care literature, and has been extrapolated to surgical patients (and to some extent medical patients). A Cochrane systematic review noted that >50% of all patients entered into transfusion trigger trials were in a single ICU study (the TRICC trial). Several concepts are useful in deciding when to treat anaemia using blood transfusion.

Critical haemoglobin concentration (see Madjdpour et al, 2006)

The “critical hemoglobin concentration” is usually

Type of patient	Proportion of all blood utilised
<i>Life-threatening bleeding</i>	<20%
Obstetrics	3%
Major Trauma	2%
GI bleeding	11%
Emergency vascular surgery	2%
<i>Surgery</i>	25-40%
Orthopaedics	14%
Cardiac	6%
General Surgery	10%
<i>Haem oncology</i>	10-15%
<i>“Medical” blood use</i> (excluding haem oncology and GI bleeding)	40-60%

Table 2: where does all the blood go? (adapted from several sources).

defined as the haemoglobin below which oxygen consumption is supply-dependent assuming normovolaemia is maintained. This is unlikely to be a fixed value, but varies between organs and is dependent on the metabolic activity of the tissue and oxygen extraction capabilities. Studies in dogs, pigs and baboons have demonstrated this critical Hb concentration in animal models to be around 4 g/dL.

A classic series of studies of acute normovolaemic haemodilution in healthy volunteers and surgical patients has attempted to define critical haemoglobin concentration in humans. The first published studies focused on the cardiovascular and metabolic response to acute normovolaemic haemodilution. Aliquots of blood (450-900 mL) were removed to reduce the individual's haemoglobin concentration to 5 g/dL. Normovolaemia was maintained by infusing fluids using central venous pressure guidance. At a haemoglobin concentration of 5 g/dL heart rate, stroke volume, and cardiac output were increased, and oxygen delivery was reduced. There was no evidence of inadequate oxygenation using global indices and the plasma lactate concentration did not change. Subsequent studies did find some evidence suggestive of organ-specific hypoxia. Continuous electrocardiographic ST-segment analysis revealed that three of fifty-five healthy subjects developed transient, reversible ST-segment depression at haemoglobin concentrations of 5-7 g/dL, although the subjects were asymptomatic and in two the changes may have been related to high heart rates. A later study focusing on cognitive function during acute normovolaemic haemodilution also found that acute reduction of the haemoglobin concentration to ≤ 6 g/dL produced subtle, reversible increases in reaction time and impaired immediate and delayed memory, which were not detectable at a haemoglobin concentration of 7 g/dL.

There is considerable clinical evidence from Jehovah's Witness patients that suggests that acute anaemia is well tolerated under many circumstances. Many reports of clinical experiences with Jehovah's Witnesses suggest that survival is possible at extremely low oxygen-carrying capacity (haemoglobin concentration as low as 1.4 g/dL^{-1}).

In summary, these data suggest that the critical haemoglobin concentration below which true anaemic hypoxia occurs is less than 4-5 g/dL in most healthy individuals assuming hypovolaemia is not present. This value may clearly be altered by patient factors related to chronic and acute disease in intensive care.

Acceptable haemoglobin concentration during critical illness (see Walsh et al, 2006; Hebert et al, 2007)

An acceptable haemoglobin concentration is the degree of anaemia that is the best balance between the risks of red cell transfusion (together with the societal benefit of conserving blood) and the risks of low haemoglobin concentration. There are two broad groups of evidence concerning the acceptable haemoglobin concentration for critically ill patients. The first is the TRICC trial and other large cohort studies that have examined transfusion practice in critically ill groups of patients. The second group includes studies that examined the effect of transfusions on indices of tissue hypoxia in critically ill patients.

The TRICC trial and other recent large epidemiological studies: This study showed that a restrictive transfusion strategy is at least as effective as and possibly superior to a liberal transfusion strategy in critically ill patients and provides compelling evidence that a haemoglobin concentration in the 7 to 9 g/dL range, using a trigger of 7 g/dL, is well tolerated by most critically ill patients and has no overall adverse effect on mortality. Among patients aged <55 years and among the subgroup with admission APACHE II score <20 there was a statistically significantly better 30 days mortality among patients in the restrictive group. The study was not powered for sub group analyses, but when these were carried out there was no statistically or clinically important difference in ventilation times or in mortality for patients with cardiovascular disease. Outcomes were also similar for the subgroups of patients admitted with trauma and head injury.

Effect of Blood Transfusions on indices of tissue hypoxia during critical illness: Most epidemiological studies in intensive care have primarily classified reasons for red blood cell transfusion

into haemorrhage or various other categories. The other categories have usually indicated the intention of the clinician to increase the haemoglobin concentration in the absence of clinical bleeding. Categories include descriptive terms such as "diminished/reduced physiological reserve", "altered tissue perfusion", "tissue hypoxia" and "coronary disease". These all indicate a clinical concern that the patient either has or is at risk for tissue hypoxia or organ specific ischaemia. In these studies such indications usually account for 40-80% of the transfusion episodes - similar to patterns of blood use generally.

Many studies have assessed the effect of blood transfusions on indices of tissue hypoxia during critical illness. Interpretation of these studies requires consideration of factors that include (a) the baseline haemoglobin concentration, (b) the index of tissue hypoxia studied and the change considered significant, (c) the method used to measure the index of tissue hypoxia, its accuracy, and confounding factors (this is particularly true for global oxygen consumption measurement and for gastric tonometry indices), and (d) the nature of the blood product used (age of red cells and leucodepletion status).

Commonly used indices of tissue hypoxaemia on a "whole body" level are the oxygen consumption (VO_2), plasma or whole blood lactate concentration, mixed venous oxygen saturation (SvO_2) or mixed venous oxygen partial pressure (PvO_2). Regional indices include gastric tonometry derived indices (pHi and "PCO₂ gap"). For the most methodologically robust studies there is little evidence that red blood cell transfusion consistently improves clinical indices of tissue hypoxia in the critically ill assuming baseline haemoglobin concentrations of $>8\text{g.dL}^{-1}$. Even transfusion with very fresh red cells (storage age ≤ 5 days) did not improve clinical indices of tissue hypoxia in euvoelaemic critically ill patients. These data show that although clinicians frequently transfuse because they are concerned about inadequate oxygen delivery to tissues, this does not usually result in measurable improvements using currently available indices of tissue hypoxia. These data support the TRICC study findings that a haemoglobin of $7-9\text{g.dL}^{-1}$ is safe for most critically ill patients.

Possible exceptions to the restrictive strategy used in the TRICC trial

The patient with chronic ischaemic heart disease

The only published subgroup analysis for the TRICC trial in which the survival lines were reversed in favour of a liberal strategy, but with non-significant outcome difference, was for patients with ischaemic heart disease at study entry. The evidence for the safest transfusion trigger for patients with ischaemic heart disease is inadequate and of particular concern to many clinicians. Retrospective cohort studies have found associations between anaemia and excess mortality among patients with non-acute coronary disease compared with patients without coronary disease at haemoglobin concentrations $<9-10\text{g/dL}$. However, in the TRICC trial the numbers of adverse cardiac events was actually fewer in the restrictive group. Specifically, the number of myocardial infarctions was smaller among the patients managed with restrictive transfusion triggers, who were more anaemic during their critical illness.

Most experts suggest that critically ill patients with chronic ischaemic heart disease can be managed with a transfusion trigger of $7-8\text{g/dL}$, and a target haemoglobin of $7-9\text{g/dL}$, unless there is evidence of myocardial ischaemia. Continuous monitoring of ST-segments, for example during surgery or in intensive care, is a sensible if unproven method to guide transfusions in such patients.

The patient with an acute coronary syndrome

The evidence is also contradictory for patients with acute coronary syndromes. Wu and colleagues retrospectively examined data for 78 974 patients aged >65 admitted with an acute myocardial infarction. They categorised patients by their admission haematocrit value and observed an association between anaemia at admission and higher 30 days mortality. Of the cohort, 4.7% of patients received a blood transfusion. Patients had a lower 30 days mortality if their admission haematocrit value was $<33\%$ and they had received a transfusion. More recently Rao and colleagues examined detailed prospectively collected data for 24 112 patients who were enrolled in 3 international randomised trials in patients with acute coronary syndromes. Of these patients 2401

(10%) received at least 1 transfusion during hospitalisation. Using complex statistical approaches, which included adjustments for co-morbidities and time from admission, the authors found an increased risk for 30 days mortality among patients who received a transfusion. When the authors explored the importance of the nadir haemoglobin value in the patients, there was no demonstrable benefit from transfusion on mortality probability in their statistical model at haematocrit values of 20-25% and at values above 30% transfusion was associated with higher probability for death. These data are confusing and illustrate the limitations of cohort studies for addressing questions concerning anaemia, blood transfusions and outcomes in clinical conditions for which many factors influence mortality.

There is an urgent need for prospective randomised trials of transfusion strategy for patients with ischaemic heart disease, particularly as up to 28% of general intensive care populations may have cardiac disease at admission.

Most experts appraising the available evidence suggest that transfusion (of single red cell units) should be considered at haemoglobin values of <8 g/dL with the aim of achieving values of 9 g/dL for most patients with severe or acute ischaemic heart disease.

Early severe sepsis

Goal directed therapy during early severe sepsis improved mortality in a well-performed single centre randomised trial. The intervention algorithm used central venous oxygen saturation <70% as a trigger for interventions to increase global oxygen delivery. Part of this algorithm was blood transfusion to maintain a haematocrit $\geq 30\%$ (haemoglobin ≥ 10 g/dL), but it is unclear how important this component was to improving mortality. The patients in the goal directed therapy group received significantly more blood transfusions and had a higher haemoglobin concentration. Until further studies are done a target haemoglobin concentration of 10 g/dL (haematocrit 30%) should be considered for patients during the early phase of severe sepsis if the central venous oxygen saturation is <70%. It is unclear how long a higher transfusion trigger should be used for these patients.

The treatment algorithm was continued for 6 hours in the randomised trial.

Children (see Lacroix et al, 2007)

A recently published RCT in children randomised 648 critically ill children to a transfusion trigger of <7 g/dL (aiming for range 8.5-9.5) versus <9.5 g/dL (aiming for a range 11-12) in PICUs. The trial was designed as a non-inferiority trial to determine whether a restrictive strategy was as safe as more liberal blood use. The primary end-point was a composite of death or progression of organ failures, although a wide range of measures were actually examined. The trial found no clinically important differences in any of the outcomes between the groups. More importantly the restrictive group received 45% fewer transfusions and 54% of the children avoided transfusion compared to only 2% in the liberal group. If blood transfusions carry risks, especially infections that may take many years to cause clinical effects, then transfusion avoidance in children and young adults is of great importance. It is important that the results of this trial are translated into clinical practice in paediatric ICUs because thousands of children could avoid unnecessary blood exposure as a result.

Does the Age of red cells matter? (see Timmouth et al, 2006)

In the UK donated red cells can be stored for up to 35 days prior to transfusions. In the US permitted storage time is longer at 42 days. The factor determining storage time is the recovery of 75% of red cells in the recipient's circulation 24 hours after transfusion. This is a measure of cell survival not function and does not necessarily equate to clinical effectiveness. It is well known that during storage many changes occur to red cells (see table 3). There is biological rationale, and some experimental evidence, that these changes could have adverse effects after transfusion into humans. However, it is unknown how important these effects are in practice and specifically what the risk benefit profile of receiving stored blood in various clinical settings is. This is particularly true as most studies relate to non-leucodepleted red cells, in which the "storage lesion" has been shown to be more marked.

Several cohort studies suggest that receiving

Table 3: changes occurring during red cell storage

Change in storage	Possible clinical effect
Loss of ATP	Reduction in energy stores Reduced deformability Right shift of oxygen dissociation curve
Loss of 2,3 DPG	Right shift of oxygen dissociation curve Impaired oxygen unloading
Loss of cell membrane	Decreased deformability
Change in red cell shape	Decreased deformability and capillary transit
Accumulation of bioactive substances in supernatant	Possible proinflammatory effects Possible immunosuppression in recipient

stored blood transfusions is an independent predictor of adverse events, such as infection, increased length of stay, and even death. These findings have been most reported in major trauma and critical care. The problem in interpreting the data is in the many factors that influence outcome in these patients, and whether they are sufficiently adjusted for in the statistical analyses performed. There are no large randomised trials comparing fresher with older stored blood, where other factors such as transfusion triggers are similar. One well-conducted trial in children aged <1 year undergoing cardiac surgery compared fresh whole blood (aged <48 hours) with stored red cells (mean age 5 days). In this study there was no difference in mortality and more adverse events occurred in the fresh blood group, probably because the volumes were higher. Unfortunately this study does not really answer the question, because the median age of red cells supplied in Scotland is significantly older (15 to 18 days).

In fact, as blood becomes scarcer and is used more efficiently the storage time decreases anyway. Work we performed recently in Scotland to assess whether we could take part in a multinational RCT of fresher versus older blood in critical care suggested that the blood supplied to patients is becoming progressively "younger" and it may be difficult to undertake a trial of fresher versus older stored blood, even if funding was available. Taken together, there is insufficient evidence to suggest clinicians should request fresh blood for their patients when they feel transfusion is indicated.

Conclusions

As anaesthetists and critical care physicians we are involved in large numbers of blood transfusions. In both these areas major advances have been made in understanding when to administer blood to patients and what strategies are effective in decreasing blood requirements during surgery. However, more trials are needed to clarify areas of clinical uncertainty, such as the safe haemoglobin concentration for patients with ischaemic heart disease. Until that time we will have to use clinical judgement, supported by physiological monitoring, to judge when to transfuse patients. We have a responsibility to make every effort to use blood products responsibly, but as conservatively as possible to conserve a progressively scarce and more expensive treatment.

Suggested recent review articles and key articles

- Hebert P.C., Tinmouth A., Corwin H.L. Controversies in RBC transfusion in the critically ill. *Chest*. 131(5)(pp 1583-1590), 2007.
- Lacroix J., Hebert P.C., Hutchison J.S., Hume H.A., Tucci M., Dueruel T., Gauvin F., Collet J.-P., Toledano B.J., Robillard P., Joffe A., Biarent D., Meert K., Peters M.J. Transfusion strategies for patients in pediatric intensive care units. *New England Journal of Medicine*. 356(16)(pp 1609-1619), 2007.
- Madjdpour C., Spahn D.R., Weiskopf R.B. Anemia and perioperative red blood cell transfusion: A matter of tolerance. *Critical Care Medicine*. 34(5 SUPPL.)(pp S102-S108), 2006.
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- Walsh T.S., Saleh E.-E.-D. Anaemia during critical illness. *British Journal of Anaesthesia*. 97(3)(pp 278-291), 2006.

South of Ireland Association of Anaesthetists Annual Scientific Meeting

In conjunction with **Scottish Society of Anaesthetists**
Killarney, October 2007

October 2007 saw one of the Society's occasional combined meetings in foreign parts. On this occasion, we travelled to be guests of the South of Ireland Association of Anaesthetists at the Malton Hotel in Killarney on Friday 19th and Saturday 20th October. A select group travelled, most spending a few days in Ireland to make the most of the opportunity.

The journey proved slightly problematic. The most convenient airport for Killarney is Kerry Airport which is about 15 minutes' drive away. Sadly planes fly there only from Stansted and this was less than ideal (but clearly works well for London-based anaesthetists when they attend the annual Dingle meeting). Another option was Edinburgh-Cork followed by a ride on the choo-choo train as the Malton Hotel was formerly the Great Southern, a railway hotel in the grand old style. My wife and I opted for Prestwick to Shannon with Ryanair. We then hired a car and drove to Killarney. This took about two hours and allowed ample time to observe the picturesque Irish countryside. As Billy Connolly said on his televised Irish tour, the colours are identical to Scotland and therefore very familiar but southern Ireland lacks our impressive changes in elevation.

The town of Killarney is a tourist magnet and is notable for its numerous large (almost Las Vegas large) hotels. Attractive these are not but competition between them gives visitors to Killarney a good choice of well-priced and well-appointed hotels. South and West of Killarney are the McGillycuddy's Reeks, Ireland's highest mountain range, at the foot of which lie the three lakes of Killarney. The Killarney National Park website suggests that the combination of mountains, lakes, woods and waterfalls under ever changing skies gives the area a special scenic beauty and I am inclined to agree. Particularly unusual is the proximity of the National Park to the town centre. Three minutes' walk took my family to the outskirts of the Park and I am confident we will back to see more of it.

The meeting itself was interesting and valuable and highlighted some unexpected differences between the two countries' health systems. There was a short ses-

sion on Education and Anaesthesia on Friday evening. Most attendees had not registered in advance but instead pitched up on the Saturday morning. Attendance was thus not great on the Friday and may initially have been in single figures.

The crowds gathered on Saturday morning. First up were SpR presentations. These were all case presentations of a high standard and were followed by a lecture delivered by the Gaffney Prize winner, Neera Malik. She is a third year medical student of Canadian origin who spoke remarkably confidently about bupivacaine-induced cardiotoxicity. Lunch was preceded by workshops given by local speakers and followed by guest lectures delivered by Drs. Pierre Foex, Liam Plant and Geraldine O'Sullivan. These speakers more than lived up to their substantial reputations. The Scottish contingent bailed out of the AGM but not before hearing that the Gala Dinner had been brought forward to allow those attending to watch the Rugby World Cup final. This (perhaps slightly chauvinistic) plan was undone by subsequent relaxed timekeeping and rendered pointless by a pretty dismal contest.

Nonetheless, members of this Society gave of their best at the Dinner and in the bar later and a convivial time was had by all. The crowd dispersed on Sunday and the wheels have been set in motion for the return leg. I can vouch for our President's remarks about the quality of the meeting and the hospitality we received and I look forward to offering our hosts some Scottish hospitality in return.

Facing page. Muckross house in Killarney National Park and McGillycuddy's Reeks at sunset.



The lakes of Killarney from Ladies' View

Neera Malik with the 2 Presidents— Peter Kennefick and Alf Shearer.





In no particular order: a Killarney “jaunting car”, the gardens of Muckross House and 2 signs.

Donald Campbell Quaich

An audit of maternal nausea and vomiting following a change from phenylephrine boluses to an infusion

M. McCormick, A. Macfarlane and E. McGrady. Princess Royal Maternity Unit, Glasgow Royal Infirmary.

Phenylephrine has been shown to be preferable to ephedrine to combat maternal hypotension following spinal anaesthesia¹. In our institution phenylephrine was traditionally given as boluses although most research is based on using infusions of phenylephrine. We decided therefore to introduce a previously published infusion protocol² and audit hypotension and nausea incidence before and after the change in practice.

Methods

For 5 weeks all elective Caesarean sections under taken using regional anaesthesia in ASA 1 and 2 patients were audited. Blood pressure was measured every minute and corrected with phenylephrine 20-40µg boluses as required. Maternal satisfaction was based on a visual analogue scale 0-10. Another 5 week period was then audited using an infusion of 100µg/ml phenylephrine at 0-40 mls/hr as per the new protocol.



Our President presents the Quaich

Results

These are shown in the table below.

Conclusion

An infusion regime reduces the degree of hypotension and the incidence of nausea and vomiting in elective Caesarean section operations. This is at the expense of higher doses of phenylephrine and vagolytics however.

	Bolus group (n=55)	Infusion group (n=51)	Significance
Phenylephrine used Mean (S.D)	90.2mg (73.1)	1256.6mg (539.6)	P<0.00001
Largest fall in MAP Mean (S.D)	30.1mmHg (14.7)	25.1mmHg (12.3)	P<0.05
Vagolytic required (n)	5	16	P<0.01
Nausea (n)	19	9	P<0.01
Vomiting (n)	13	4	P<0.01
Satisfaction Median [range]	10 [6-10]	10 [7-10]	P<0.05

References:

1. Cooper D et al. Fetal and Maternal Effects of Phenylephrine and Ephedrine during Spinal Anesthesia for Cesarean Delivery. *Anesthesiology* 2002; 97:1582-90.
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Tourniquet-induced haemodynamic changes measured by LiDCO™ plus

Fitzpatrick KR¹, Young SP², Chestnut RJ³. 1. Specialist Registrar, Victoria Infirmary, Glasgow. 2. Specialist Registrar & Lecturer, Leicester Royal Infirmary. 3. Consultant Anaesthetist, Crosshouse Hospital, Ayrshire.

Background

Mean arterial pressure (MAP) is known to increase following tourniquet inflation, and decrease following tourniquet release.¹ Cardiac output (CO) and systemic vascular resistance (SVR) determine MAP. Changes in CO and SVR associated with tourniquet use are not well defined. Management of tourniquet hypertension and hypotension may be improved if changes in CO and SVR are better understood.

Methods

Following ethical approval 14 patients undergoing oromaxillofacial tumour surgery were studied. Thirteen patients had radial forearm, and 1 patient radial forearm and fibular, free flap surgery. Indexed CO and SVR were continually recorded using LiDCO™ plus. The Friedman test with Dunn's multiple comparison post test were used for statistical analysis.

Results

Significant increases in MAP ($p < 0.05$), CI ($p < 0.001$), and heart rate ($p < 0.001$) occurred between tourniquet application and immediately prior to tourniquet release. After tourniquet release significant decreases were observed in MAP ($p < 0.001$), CI ($p < 0.01$), and heart rate ($p < 0.05$).



No significant changes in SVRI were seen following tourniquet inflation or release.

Conclusion

Changes in MAP following tourniquet application resulted from changes in CO rather than SVR. Treatment of tourniquet hypertension and hypotension may be best targeted at manipulating CO rather than SVR. Further work is needed to clarify these findings.

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Germs get through anaesthetic breathing filters.

Fraser S. SpR, Gartnavel General Hospital, Glasgow

Introduction

Anaesthetic breathing filters are recommended to prevent microbiological contamination of breathing circuits, enabling them to be used on multiple patients. The standards relating to their filtration performance involves a test with aerosolised salt crystals for three minutes. This does not take into account liquid soiling of the filters. We performed a laboratory based experiment to assess whether viable micro organisms can pass through the filters in a liquid phase.

Methods

We measured the pressure required to make saline leak though 6 different HME Filters (2 Hydropho-

bic, 4 electrostatic). We then repeated this with saline inoculated with a Coagulase Negative Staphylococcus broth and a yeast broth. We cultured the filtered liquid on agar plates to look for growth.

Results

Liquid passed through all filters tested. The pressures required were remarkably constant for each type of filter, but ranged from 0 to 102 mmHg, with the hydrostatic filters requiring the highest pressures. Viable organisms were grown in the filtered liquid in all instances.

Conclusions

Bacteria and yeasts pass through anaesthetic breathing filters in vitro. They would be expected to pass through them in vivo especially if exposed to liquid contamination eg copious secretions, pulmonary oedema, and aspirated stomach contents. Our study indicates that they are unlikely to be an effective barrier to microbiological contamination of anaesthetic breathing circuits.

Survey of extubation practice – the end of routine extubation in the left lateral position?

T Pettigrew Gartnavel General Hospital, Glasgow

Introduction

Extubation of the trachea was traditionally performed in the left lateral, head down position. There were numerous reasons why this was the preferred technique, but many of them are largely historical and based on anecdotal evidence¹. Recently, a United Kingdom (UK) survey has indicated a trend towards awake extubation in the supine or head up positions for most anaesthetic situations including anticipated reflux risk². Many teachers and guidelines however still advocate extubation in the left lateral, head down position for emergency anaesthesia. This audit was designed to see

whether our departmental practice mirrored that of the UK. If the majority are employing supine or head up techniques for emergency anaesthesia then why are we teaching new trainees a technique that we no longer practice?

Methods

A survey form was designed and distributed to all members of the department (consultants and training grades) on the electronic mailing list. The form required tick box responses and used a similar, but abbreviated, design to a recently published survey of UK extubation practice².

Results

33 complete responses were received (response rate 38%). The majority of returns received were from consultants (67%). The results of responses to patient position at extubation are summarised in table 1.

Discussion

The majority of anaesthetists (60%) extubate the trachea in the supine or head up positions even when a full stomach is anticipated. Despite this being a recognised trend, these numbers far exceed those from the recent UK survey². Educators need to acknowledge that this practice is becoming widespread.

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Impact of transoesophageal echocardiography during cardiac surgery

R. Chapman, A. MacFie. Dept of Anaesthesia, Western Infirmary, Glasgow.

Transoesophageal echocardiography has become well established as a monitoring and diagnostic tool in the perioperative period in cardiac surgical patients. A num-

Table 1 Patient position at extubation:- n (%).

	Head up	Supine	Left lateral	Left lateral head down	Other
Fasted	11 (33)	22 (66)	0 (0)	0 (0)	0 (0)
Reflux risk	6 (18)	14 (42)	8 (24)	5 (15)	0 (0)
Obesity	24 (72)	7 (21)	2 (6)	0 (0)	0 (0)

ber of studies from the USA have demonstrated that TOE impacts on surgical management of patients. The perioperative TOE service in our institution is a developing one and the purpose of this audit was to evaluate its effect on patient management.

Methods

The audit was undertaken at the Western Infirmary with data collected over a 3 month period. New findings pre and post cardiopulmonary bypass and alterations in the planned procedure or clinical management were recorded. The indications for TOE according to the ASA/ACC guidelines were recorded.

Results

28 patients were included in the audit. 15 (54%) had class 1 indications, 12 (43%) had class 2a and 1 (3%) had class 2b. In 25% of cases TOE provided new information pre-bypass and in 14% of cases this information altered surgical management. In 25% of cases TOE examination resulted in new information post-bypass and in 11% of cases this information led to a significant change in surgical/haemodynamic management. There were no complications from probe insertion. In one case there was difficulty with probe insertion and the TOE was abandoned. In 29% of cases, there were problems with the availability of an echo machine.

Discussion

This audit confirms the importance of TOE during the perioperative period in cardiac surgical patients. The audit highlighted a shortage of TOE machines; however our hospital is at present in the process of acquiring more machines.

Acknowledgments

We would like to thank the cardiac anaesthetists at the Western Infirmary for their help with this audit.

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Editor's note. The five abstracts above were from the participants in the Donald Campbell Quaich. The two published below won first and second prizes in the Trainees' Poster competition.

Central venous catheter slippage with snap lock connector

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4 Consultant, Department of Anaesthesia, Dumfries and Galloway Royal Infirmary, Dumfries.

Motivation:

Securing a central venous catheter (CVC) is of crucial importance for its safe use. Dislodgement of CVCs can be a source of significant morbidity and even mortality. Dislodged CVCs may result in bleeding, extravasation of irritant substances, or infection. Patients may also need another CVC inserted with all the risks entailed in a repeat procedure.

Problem statement:

We have had a number of patients in whom central venous catheters (CVCs) have unintentionally become dislodged. The common factor was that they were secured by the snap-lock connector but not sutured at the proximal hub. We wondered whether the snap lock provided similar security to that achieved by using both the snap lock and proximal hub.

Approach:

This study measured the force required for dislodging five CVCs (Arrow, 4 lumen, 20cm) when only the "snap lock" was sutured, or both the proximal hub and snap lock CVC were sutured. We sutured a 20 cm 4 lumen 8.5 F CVC (Arrow, Reading, PA) using 2-0 "Sofsilik" (Tyco Healthcare Basingstoke, Hamps) to orthopaedic felt by only its snap lock connector. The CVC was secured to a calibrated spring test gauge (Graseby Medical, Watford, Herts) and the CVC pulled with increasing force until slippage of the CVC was observed. The CVC was marked with a pen beyond the snap lock connector, and movement was noted when it began to disappear under the snap lock. The force was applied along the length of the CVC.

The experiment was repeated with the snap lock and CVC in room temperature water. The water temperature was measured with an electronic thermometer (Comark type 1625). We repeated the study again but this time with the proximal hub sutured. The results were analysed using Arcus QuickStat (v 1.0) using a two-tail t test with the significance level chosen as $p < 0.05$.

Results:

The amount of force required to dislodge the CVC when sutured by its snap lock was measured as 8.2 (3.4) N, this reduced to 4.2 (1.9) N when the snap lock was in water at 21.5°C and it increased to 33.2 (7.6) N if proximal hub was sutured (mean and standard deviation). The difference in force required for dislodgement was statistically significant between both snap lock dry and wet ($p = 0.0067$), and between dry snap lock and suturing the snap lock with proximal hub ($p < 0.0001$).

Conclusions:

Our study clearly demonstrates that suturing only at the snap lock leads to dislodgement with only moderate traction. Additional suturing at the proximal hub increases the force required nearly fourfold which we feel is clinically relevant. Whilst our study only used five CVCs, all of which were from a single manufacturer, we achieved statistical significance. We recommend that the snap locks should not be used as the sole fixation device.

Scotland versus England: “Anaesthetic Practitioner” or “Physician Assistant – Anaesthesia”?

A May, Western Infirmary Glasgow
T Pettigrew, Western Infirmary Glasgow
R Smith, Frenchay Hospital Bristol

Recently we stumbled upon minutes of the NHS Education for Scotland steering group on “Developing the role for Physician Assistants – Anaesthesia” [1]. During October 2006 it was proposed to change the title of the “Anaesthetic Practitioner” (AP) role in Scotland to “Physician Assistant – Anaesthesia” (PA-A). This ap-

parently reflects the Scottish Executive’s wish to pursue a more generic terminology for advanced practitioners. We could not find any intention to change the name throughout the rest of the United Kingdom (UK). In the climate of increasing advanced practitioner roles and Modernising Medical Careers there is a bewildering mix of job titles. We hypothesised that there would be a difference in the public’s perception regarding the AP and PA-A job titles and devised a simple survey to demonstrate this.

Over one weekend, general public in Glasgow and Bristol were simultaneously surveyed. Members of the public were stopped on the street and asked for 1 of 3 responses to 5 NHS job titles (Table 1).

In line with previous studies [2-3] there was a proportion of the public who did not think anaesthetists were doctors (table 1). A majority of respondents (70%) incorrectly assumed that an AP is or could be a doctor. Contrastingly, only 28% thought there was any possibility that a PA-A was a doctor.

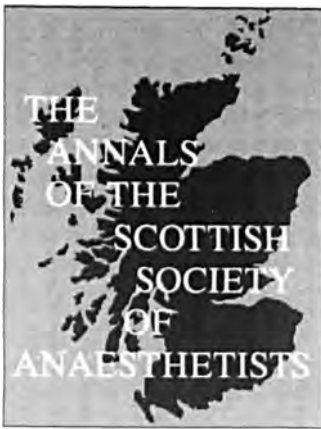
There is public confusion regarding advanced practitioner roles and perhaps the Physician Assistant title adopted by the Scottish Executive is more transparent. We suggest that this title is adopted throughout the UK.

References:

- 1) <http://www.nhs.scot.nhs.uk/ap/documents/160806minutes.doc> (accessed 22.01.2007)
- 2) ST Chew, T Tan, SS Tan and PC Ip-Yam, A survey of patients' knowledge of anaesthesia and perioperative care, *Singapore Medical Journal* 39 (1998), 399–402.
- 3) MA Hume, B Kennedy and AJ Asbury, Patient knowledge of anaesthesia and peri-operative care, *Anaesthesia* 49 (1994), 715–718.

Table 1. Survey Responses

NHS job title	Response:- n (%)		
	“Is a Doctor”	“Could be a Doctor”	“Is not a Doctor”
Anaesthetist	108(64%)	14(8%)	48(28%)
Surgeon	148(87%)	8(5%)	14(8%)
General Practitioner (GP)	167(98%)	3(2%)	0(0%)
Anaesthetic Practitioner	44(26%)	75(44%)	51(30%)
Physician Assistant – Anaesthesia	9(5%)	38(23%)	123(72%)



What?

Who?

Where?

When?

- News from the Regions.....

Many thanks to those who have been willing to contribute. All human life is here.

In last year's edition, an indirect reference was made to Dr Fiona Pearsall. An apology has been tendered to Dr Pearsall by the author of the article, Dr Stewart Milne, for the offence caused by those remarks. It was not the Society's intention to cause offence by publishing the article and we would apologise accordingly.

Aberdeen - *Andrea Harvey*

The waves breaking along our Northern coastline reflect quite nicely the varied pace of our department throughout the past year. At times bursting with energy and activity, occasionally looking stormy even a bit rough; more often gently ebbing and flowing in a calm and repetitive manner. However it is only when you look beneath the surface that this aquatic activity can fully be appreciated as the stones and rocks are pounded and reshaped.

Departmentally, this year's 'reshaping' saw us sadly saying good-bye last April to Richard Davidson-Lamb. Richard had contributed widely during his many years as consultant in our Department. Hopefully his retirement will now provide him with time to visit his new grandchildren, travel and continue his fishing and golf. Our department has welcomed new consultant colleagues: Luna Knox and Amr Mahdy stayed with us in Aberdeen to take up posts with a special interest in Obstetric and General Anaesthesia respectively, while Saravana Kanakarajan joined us from Birmingham with an interest in Chronic Pain. Two of our trainees took up Consultant posts outwith Aberdeen, although both have remained in Scotland. David Macnair is now 'down South' in Dumfries, while Mike Macmillan has gone 'West' to Paisley's Royal Alexandra Hospital. At the time of writing, our Department is in a very unusual position.....we have no-one off on maternity leave! Earlier this year saw the safe arrival of babies for Fiona Warwick, Andrea Jansen, Gwen Johnston and Eashika Knox.

Reshaping also is being forced upon us as a result of MMC, as many other departments will agree. By the time of printing, our department will have completed its trial period of running the week night, general emergency out-of-hours rota with no registrar middle grade cover. While this already happens outwith the teaching hospital sector, it is probably going to happen on a more frequent basis in the larger teaching centres too. Reduced trainee numbers, service and training demand conflicts and difficulty recruiting to the North-East has forced our hand. It remains to be seen what knock on effect it will have to consultant job plans and daytime availability.

Continuing on the 'reshaping' theme, but this time on a much larger scale, Spring 2007 saw work finally begin on the Matthew Hay Project. This will result in a new five storey state-of-the-art, purpose built medical education and clinical training centre on the Foresterhill site. Building construction should be complete by late 2008 and hopefully operational by January 2009. Many colleagues are or have been actively involved in the project and fundraising activities continue in our department, with one of the organised events being next year's An-

aesthetic Department Ball. Rona Patey in particular has been very active with the Matthew Hay Project; hopefully her new role as president of the North East of Scotland Society of Anaesthetists will not slow her efforts down. If you know Rona, that would be very unlikely!! On a different **note** (pun intended), while many X Factor hopefuls can only dream of fame and having a record released, we have our very own departmental star. Harry McFarlane (drums!) along with 4 other medical friends, collectively known as The Swing Doctors, released a Jazz CD with internationally acclaimed vocalist, Joke van Welsenens, to raise funds for the Matthew Hay project. Donnie Ross continues to expand his artistic portfolio and support his former colleagues by designing the CD sleeve. The CD is excellent, costs £10.00 (bargain)...anyone wishing to hear it for themselves can purchase via cd@abdn.ac.uk!

Ayr Hospital - *Ruth Jackson*

After Ayr A&E's reprieve by the please 'em all, spend it all Scottish 'Government' we're back to another Service Review. We all read the Ayrshire Post to keep us updated on events! Our merry band has changed little over the past year, Barbara and Amadeusz are now well settled in Ayr and we are looking forward to our new consultant recruits joining us early in 2008. Ken MacKenzie is retiring in the spring to coincide with the start of the golfing season and he will be an even more regular sight on the fairways at Turnberry and other famous Ayrshire golf courses. I can feel a bit of a do coming on.....

Balfour Hospital Orkney - *Colin Borland*

2007 should have been a year of stability prior to my retirement in 2008. However one of the job-share French Consultants appointed last year (Christine Dautheribes) has decided to leave Orkney. Which means by the end of this year my 'retirement' looks more like becoming a part-time post. On the basis of which a flat has been purchased in Glasgow Harbour complex so that we (wife and me) can live between Orkney and Glasgow - to catch up with grandchildren and also to eagerly await the arrival and departure of the Cessna seaplane on the river Clyde. How sad is that?

Macolm Thompson continues his quest to become an EPALs instructor and in his spare time has completed Spanish and Latin modules as part of an OU degree in modern languages.

Jean-Francois Enault is patiently encouraging us all to become more conversant with local anaesthetic blocks but as resident dinosaur I confess to finding it difficult to utilize ultrasonics for this purpose.

Air ambulance escorts are a frustration for us all as they

usually result in the on-call Consultant being out of Orkney overnight and sometimes for over 24 hours. With unwelcome knock-on effects for previously off-duty personnel. Added to this are problems repatriating ventilator and monitoring equipment used in transport since we return to Kirkwall via scheduled airline flights. With minimal relaxation of hand-baggage restrictions and the 23Kg hold luggage allowance. Needless to say, adult retrieval teams cannot come too soon!

2008 will therefore see Balfour Hospital seeking to recruit a whole-time Consultant to our team, and I may still be the author of next year's update.

Borders District General, Melrose - Tom Cripps

The Borders General Hospital Anaesthetic Department has (at least temporarily) survived the onset of MMC. Dr Janet Braidwood retired in November, and is to be replaced by two new consultants - Jonathan Aldridge and Imogen Hayward. This brings our Consultant complement to ten.

News from the Far North

Caithness - John MacLeod

Can it be a whole year since last we spoke? A blur of busy lists and lives saved. Actually no - this is Caithness after all and truth to tell very little has happened in the last year. We are still a department of 3 happy folk working now and then in our Remote and Rural hospital, an oasis of calm and tranquillity in an increasingly turbulent world. We maintain our claim of having the oldest substantive consultant anaesthetist in Scotland, ever thankful for the legislation prohibiting ageism in the work-place.

We seem to be edging closer to our colleagues in the big hospital down the road - and may soon be allowed to anaesthetise the odd patient: truly an historic moment. Continuing the unremittingly positive theme, I have to report that NHS Highland has embraced proposals for a highland-wide chronic pain service, which recognises the work done currently in rural hospitals. I have to declare an interest, providing a local pain service. In a reversal of the usual practice, I will be taking up some pain sessions in the big hospital down the road (where no such provision currently exists).

I have made every effort to be positive - this follows comments I received after last year's piece that I was clearly clinically depressed - the medication has obviously had some effect - although as a Lewisman you can't expect too much. Two issues spring to mind which cause local concern- the lack of a retrieval service for adult ITU patients; I'm sure the current audit will provide useful data but I'm not sure that the outcome will be the retrieval service we need: secondly the attempt

by management to limit study-leave budgets. I believe that this disproportionately affects consultants in rural general hospitals, where the access to local meetings etc is very limited.

Enough whinging-

Crosshouse - Chris Hawksworth

Forward planning with regard to staffing, acute services and senior staff's work-life balance seems to be the main topic in North Ayrshire Anaesthesia. By the time you read this, we may or may not have another couple of consultants at Crosshouse. There are sessions galore awaiting a consultant anaesthetist, but where their office space will be is uncertain. In an attempt to accommodate the planned new consultants, Alistair Michie tried creating more desk space in his office by dumping all his paperwork on the floor, but nobody noticed the difference. The consultant body as a whole are also hoping that Stan Zimmer's attempts to get off the ITU on call rota will succeed. The idea is not new and there are precedents in other hospitals with similar staffing levels. Even the management are supportive of the idea.

The future of Emergency Medicine in Ayrshire and the inevitable impact this has on anaesthetic and intensive care services is currently the subject of a further 'independent review' ordered by the person whose name I cannot bring myself to mention. Why several years of hard work should be potentially scrubbed on the word of that wee wifey from Dreghorn is beyond me. Perhaps I should be grateful - it's hard enough remembering what is going on in a five bedded ITU, let alone the proposed 9-11 beds the original review would have given us.

Caroline Whymark has returned to work after maternity leave and has taken up the role of College Tutor again. We should also welcome back Antonio Martinazzo who has joined us as a Staff Grade. Crosshouse has a habit of attracting former trainees such as Antonio back to permanent posts. Presumably this means that despite the political shenanigans affecting Ayrshire, the department of anaesthesia remains an attractive and friendly place to work. As in most departments, we couldn't function without our secretarial support. Sylvia Corbett has now been joined at the office front desk by Margaret Dunlop. I am assured that this increase in secretarial staffing is due to the ever increasing workload, not the fact that Sylvia has become a granny again. We seem to have come out of the MTAS farago relatively unscathed, with trainee numbers maintained. Unfortunately two of our SHOs had to migrate south of the border to obtain posts at very short notice and one has gone to do research for a year in Paisley. We wish Satish Gopa, Srinu Magham and Vish Uppal well in their new posts.

Dr. Gray's - Colin MacFarlane

Janet Tryhall retired in April and headed off to complete all her Munros. Congratulations! We did 60 critically ill transfers mainly to Aberdeen (60 miles) this year and we are looking forward to seeing the new transfer sledge. I think we need two. Our catchment area has expanded with more surgeons, and our delivery rate is up to 1100 this year. Our Section rate is about 15%. We have a new education centre that could be described as not large. No money was wasted on sound-proofing. The hospital hopes to develop a "Life-Science Centre" which might allow us to do ALS and ATLS courses in Elgin once more. We are pushing on with certifying our anaesthetic assistants for the new Portfolio of Core Competencies that is being rolled out nationally this year.

Dumfries & Galloway and Stranraer - Willis Peel

Firstly, many thanks to Hugh who has written on our behalf for as long as I can remember.

There have been many changes in Dumfries and Galloway in the last year. Dr Hugh Brewster and Dr Ron Meek have retired from full time practice and are now splitting their time between the golf course and the occasional list for us. Dr David Bennie also retired. Gwen and David have now left Dumfries and live near Oban. They occasionally visit and it is always nice to see them. We have been joined by two new consultant colleagues, Dr David MacNair from Aberdeen and Dr John Muthiah from Newcastle. John has taken over from Ron in the pain clinic (brave man!) and David delights in obstetric anaesthesia. Our Spr this year is Katherine Howie who passed the final before Christmas - well done. Congratulations also to Jeremy Musgrave (ST2) who passed the MCQ of the first part.

Way out west, Randal and Hamish continue to provide an excellent service. I believe Hamish still has his pigs for his amusement in his spare time!

Fife - Gordon Smith

This has been a year of great change as far as the senior staff in Fife are concerned. We have had no fewer than 3 retirements and another consultant has moved to pastures new.

To take these in order. In August Neil Malcolm who had been a stalwart of intensive care in Fife for 10 years decided to return to Canada to take up where he left off in 1997. In September Halina Anderson, John Emery-Barker and Hany Mina decided the time had come to hang up their boots. Halina and John were the last remaining consultants who saw action in the old Dunfermline and West Fife Hospital and put a lot of work into ensuring that the anaesthetic services in the new

Queen Margaret Hospital, which opened in 1993, were up to scratch. They also both had experience of the Clinical Director role and served on many committees particularly involving equipment and day surgery. Their many years of experience will be sadly missed. Hany was instrumental in making sure that our rota worked efficiently and fairly. Alasdair MacKenzie, who has taken on this role, has a hard act to follow in maintaining the high standard set!

We were fortunate to obtain the services of 4 new consultant colleagues to fill these gaps. Martin Clark who trained in Dundee had already been appointed earlier in the year and has now moved into his area of expertise in Intensive Care. At the end of September we were joined by Kay Dell who is a Glasgow graduate, but has been working in Oxford and Arif Rahman who hails from Kirkcaldy and is following in the footsteps of his mother Farida Rahman who worked in our department for many years. We also welcome Ben Shippey who came from the Edinburgh rotation and will also strengthen our Critical Care team. With all these changes our department now has a youthful air. Just makes me feel old!

Other news. We now have some action in the start of the new building which will house all Fife's Acute Services in the future. The first step has been to fill the shallow mine workings that surround this area of Kirkcaldy with concrete which will hopefully prevent our new buildings disappearing into a large void. This should enable the start of construction early next year with a move in date of late 2010 if all goes to plan. The probability is that our obstetric services, at present based on an isolated site at Forth Park Hospital, will move to the main site first, only 25 years since this plan was first mooted when I was but a young and enthusiastic consultant!

MTAS has come and gone without changing our trainee numbers to any extent. At present, we have a lot more senior trainees than was the case previously which makes the covering of lists a little easier than before though presumably, as the changes work through, this will not last. Unfortunately, as has been the case for the last 2 years, consultant vacancies are few and far between and it has become very difficult for these individuals to secure permanent posts. As I predicted last year our rota to cover the ICU at Victoria Hospital has been under a lot of strain which has meant consultants (including the "old" ones) doing a fair bit of first on call though at least we now have a written agreement on payment for this unpopular task.

In conclusion I would like once again to thank all my colleagues for their help and support over the year. I would also like to single out my Directorate Manager,

Linda Noble, without whom the job of Clinical Director would be made that much more difficult, if not impossible. As I look back it is difficult to imagine how much change there has been in my 28 years as a consultant in Fife. The founder of the Anaesthetic Service in East Fife hospitals Dr James R. Kyles, who was a consultant here from 1950 to 1981 would have been very proud to know that his legacy would eventually see the creation of a centralised acute hospital in Fife 30 years after his retirement.

Forth Valley - Andy Woods

There have been few major changes in Forth Valley in the past year. We welcomed Ewan Jack as a replacement for Wanda Richards in March. More recently we appointed Sonia Allam to replace David Simpson - a hard act to follow. We congratulate both Fiona McIlveney on the birth of her son Craig, and Sonia and Andy Woods on the arrival of Zak.

We were pleasantly surprised to receive a slightly increased number of trainees in August. Thanks to the people who devised MMC!!! This does however make it difficult to train our PA-A trainees, of which we now have four. We are looking forward to 2009 when we will move into the new centralised hospital at Larbert - hopefully on time.

It is with great sadness I have to report the death of Lou Michels - a great man, sorely missed. Our thoughts are with Jo and the girls.

Glasgow Royal Infirmary - Stewart Milne

The whole department was greatly saddened by the sudden death of Gordon Sutherland on 27th March, 2007. Gordon was appointed as a Registrar at GRI in August 1977. After a year in Canada, he was appointed as an SR in December 1981 and gained his Consultant post in December 1983. Within the department and across the hospital we all miss this highly valued consultant colleague.

Gavin Kenny retired as Professor of Anaesthesia. John Kinsella has recently been appointed to the Chair. Intensive care, Obstetric anaesthesia and Chronic pain all remain as busy as ever. Cardiac anaesthesia still awaits a final date for the move to the Golden Jubilee National Hospital.

The new trainees allocated to us by MMC are all settling in well. Martin McCormack takes up a consultant post based between the Royal and Stobhill and is due to start at the end of 2007.

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. This has meant the anaesthetic department is now well positioned to provide for anaesthetic trainees. We have established a difficult airway training module and a number of local SpRs have undertaken 6-month attachments to this end. We currently run local study days on difficult airways and have taken an active role in the RCA workshops. Dr Goutcher took up post as consultant with paediatric interest in January 2007, and we continue to forge links with Yorkhill.

In ITU we are working closely with the University of Glasgow to develop a real time breath ethane monitor to detect oxidative stress. We currently have a "portable" bedside monitor which we are about to trial. Ward watcher has now been installed in our ITU and we will shortly start collecting data.

April 2007 saw the Neuroanaesthesia Society descend on Scotland for its annual meeting. Although this was hosted in Edinburgh, all four Scottish neuroanaesthetic groups were involved in set-up and running. Dr Pollock worked very hard for the INS, and produced what was a very successful meeting.

Glasgow Western & Gartnavel - Colin Runcie

Little has changed here now that we have put in our behind the fiasco that was MMC/ MTAS. A notable departure was that of Douglas McLaren, President of this Society in 2006. We wish him well and hope he enjoys reasonable health in the years ahead.

A complex yet transparent process resulted in his replacement by Jonathan McGhie (who trained here and has an interest in Pain Medicine) and Marcin Chiecomski (who trained in Poland and had been working as a locum consultant with us).

Roddy Chapman, Ewan Jack and Alison Campbell all moved on to a consultant posts - Roddy to Monklands, Ewan to Forth Valley and Alison to Crosshouse (the latter two taking up interests in ITU). One of our trainees, Joe Rumley, returned to an attending position (I think) in New York City and our other locum consultant, Daniel Farrugia, has returned to Malta.

In terms of departmental demeanour, we continue to luxuriate in the pleasures of the pan-Glasgow setup ('my loaf is a pan, I'm a Kelvinside man' as Victor and Barry once said). The trio at the apex of our flat pyramid (lead clinician, rota consultant and chairman) have provided inspirational and charismatic leadership and the warm feelings that were so much in evidence last

year have not abated. We face the future united in our enthusiasm for the job at hand and bolstered by feelings of mutual respect and affection.

Hairmyres - Grant Haldane

Nothing much has changed in Hairmyres in the last year. A new government in Holyrood has derailed the previous process of restructuring health care in Lanarkshire & much frustration exists within the camp at the lack of a clear future for the department. A new independent scrutiny panel has been appointed & further potential models of delivering health care within Lanarkshire have been submitted by the board. We now await a decision from Nicola Sturgeon in the early part of 2008.

The centralisation of cardio-thoracic services at the Golden Jubilee Hospital apparently continues to be the regional plan but 'slippage' seems to regularly apply to the inception date. It is still unclear if any of the anaesthetists at Hairmyres will move sessions to the Golden Jubilee.

We are now into our second complement of Physician Assistants - Anaesthesia within Lanarkshire & this continues to be viewed positively within Hairmyres with good feedback from the trainees.

MMC came & went relatively painlessly. Hairmyres generally doing well with respect to the distribution of more experienced trainees in August although concern remains that this may not be a consistent offering to the district hospitals.

Two further babies have been added to the complement of offspring within the department. All are well & not affecting parental sleep patterns too adversely.

Inverclyde Royal - Duncan Thomson

Another year passes: MTAS changes the faces, waited until today for the last name, two days notice, no trainee to fill the spot, nobody to blame, just the system... Of the trainees, Nicola off to NZ having been offered a post by MTAS after weeks of smoke and mirrors, good luck to her. Andy Clarkin filled his rucksack and headed off north to Inverness for (the?) heather and whisky. Chris Gaylard has gone to the warmer south, Charlie Dunnett and Robert Docking remain to provide some stability. We welcome Vic Kasi, Paul Joshi and Jill Selfridge. To the rest of us, Artur Pryn has joined as a Consultant and is currently plumbing the depths of the Maldives, assuming he returns we are delighted to welcome him. Fiona has regaled him with stories of diving in Loch Fyne. We have yet to turn him to the dark side of departmental life; cycling and skiing. Manfred had some superb heliskiing in Georgia last season but is still fret-

ting about how long it will take to carbon offset, his suggestion of simple family holidays while he still went skiing did not go down well, we hear!

Grant has now retrained as a Chronic Pain specialist to fill the shoes of Carlin Thomas, he really doesn't suit the heels though. John is just back from a 3rd class rail journey round India, no he didn't get to travel on the roof. Lew Chin and Fiona are sailing in Turkey, Bob goes there next week.

Tim is just back from safari in Botswana, leopards everywhere! Me, well someone has to do the work while they all jet off round the world. I have bored all and sundry with pictures of my new baby, no not more kids, this one is carbon, courtesy of Gordon Brown on the cycle to work scheme, I am looking forward to taking a shot at the departmental record commute time. Ben and Clara also stayed at home to keep the ship afloat. Now where are those holiday brochures...

Monklands Hospital - Roddy Chapman

2007 has been a time of great uncertainty at Monklands with the prospect of a change in function of the hospital to a planned care site under the NHS Lanarkshire 'Picture of Health' proposal, approved by the Labour Scottish Executive, to expand the Wishaw and Hairmyres hospitals as acute care sites whilst keeping Monklands, amongst other things, a planned surgery site. The May election brought a different administration at Holyrood with a promise to maintain A&E services at Monklands Hospital. At present we are in the midst of re-submission of future plans to the SNP Scottish Government under the watchful eye of an Independent Scrutiny Panel. February 2008 and beyond is when a decision is expected.

Despite this the department of anaesthetics at Monklands has continued to flourish, although 2007 has seen several retirements. Drs Paterson, Reid, Naismith and Thorp all retired from their substantive posts after together providing over 100 years service to this hospital! We are all grateful for their great service and wish them well in their retirement. At consultant level we have welcomed 4 new consultants: Jim Ruddy, Sabu James, Roddy Chapman and Alison Walker. In addition 2 substantive staff grades have taken up post: Drs Seth and Shah. The pressure to maintain elective activity and meet waiting times targets has been relentless of course and is set to continue.

August 2007 and the months preceding it was a time of great unrest and anxiety for trainees at Monklands (as elsewhere I'm sure). In general the changeover was uneventful and we are delighted with the current trainees. As part of NHS Lanarkshire's contribution to Physician

Assistants – Anaesthesia we welcomed 2 trainees for the second 8 months of their 27 month training period in July to allow exposure to in-patient ENT, oral surgery and urology which are NHS Lanarkshire centralised services on the Monklands site.

Over the last year and a half the 3 departments have been brought together under 1 directorate of anaesthesia, theatres and critical care. This, together with the review of acute services, has led to close collaboration on the development of services such as the anaesthetic cover of the large maternity unit on the Wishaw site and the development of critical care within Lanarkshire.

No doubt the next year will bring further change and challenges but hopefully more certainty on the future of the Monklands site.

Tales from Tayside – The Ninewells News - Matthew Checketts

Well, where did that year go? It has been quite eventful one way and another but life goes on as usual. We have had more than the usual number of comings and goings in 2007 and I still haven't got to grips with who all of the new faces are yet.

Tony Wildsmith retired at the end of the tax year (not sure if this was a coincidence or not!) and we all miss his wise words and ready witticisms (or was that criticisms?). He tells me he is enjoying life and continues to collect air miles, but now it's on pleasure rather than business trips. As to his successor, we have a high flying scientist interested in the chair. Dundee University got very snotty about the CVs of all the clinicians who we suggested, as they hadn't published in *Nature* this year! Oh, enslaved to the R.A.E. We live in interesting and changing times.

Two other long serving colleagues retired this year as well. First Alf Shearer, whose energy will be missed, and then Mel Thomson who couldn't be persuaded to stay on as he has a farm to look after. He also plans to see more of his son's games for Scotland having broken into the 1st XV squad during the World Cup.

Justine Nanson had another baby and has been on maternity leave but will be back in 2008. Catriona Connolly and Pamela Johnston have recently been on their second teaching trip to Malawi, Phil Lacoux was working in Ghana with some of our local plastic surgeons and Grant Rodney went to Vietnam so we have been getting about. Talking of getting around, Jain Levaack, Ian Mellor and Scott Farmery have all been on military duty in Iraq and Afghanistan and have returned with interesting stories of life in conflict zones.

Gordon Bathgate was appointed to a consultant post at Raigmore and joins the growing ex-Dundee colony there. There must be something in the water up there that attracts folk!

Sabu James got a consultant job at Monklands while John Luck and Robi Zimmer recently were appointed to lead the orthopaedic anaesthetic service for the Golden Jubilee in Glasgow. We look forward to keeping in touch and collaborating in research projects with them. Hugh Rorrison is returning to NZ as a consultant at Hawkes Bay (enjoy the local wine, Hugh). Our Aussie colleague Andy Crockett has taken a locum Consultant job at the Southern General in Govan. We hope he picks up the local vernacular soon and has the opportunity to sample the delights of the nearby Gazelle public house.

We lost 5 SHOs at the end of July thanks to MMC and we had 13 new faces arriving which caused lots of confusion. The dust is just settling now.

Christina Beecroft and Stephen Humble are off to Adelaide for a year (separately) and we look forward to welcoming them back on their return. Christina was one of the kingpins when we ran our successful anatomical regional anaesthesia course here in October. The next one is in March and September so contact me if you are interested.

Pauline O'Neill will shortly return from Aberdeen after higher ICU training there and Ross Simmons escapes from the lab and starts the painful process of writing up his PhD.

We continue with split site working with Stracathro' and PRI, although a couple of us have decided it didn't work for us and reverted to home territory. It's fair to say that the NHS Treatment Centre run by Netcare at Stracathro has not been a roaring success to date but continues in business for the time being. Anyone interested in well paid sessional work there can speak to Dr Levaack!

Back in the real NHS we struggle with the 18 week targets and now run elective orthopaedic lists 7 days a week. Well I suppose it all helps the holiday fund!

We look forward to the challenges ahead in 2008! Best wishes to all from Tayside.

Royal Alexandra Hospital, Paisley - Jackie Orr

On June 30th 2007 two men drove a blazing Cherokee Jeep into Glasgow Airport, propelling the RAH and John Smeaton into the international news headlines. At times over the next few days there were more armed police officers than nurses in our area of the hospital.

Despite the surreal and alarming situation, the ICU staff coped magnificently and medical staff and managers were seen to work together at the coalface. For the rest of the hospital, friendships were made in the queues for new ID badges, the siege mentality set in as another controlled explosion prevented movement in and out of the site, and two policemen at every doorway became unremarkable until the patient was transferred to Glasgow Royal Infirmary and life for us returned to normal.

A month later we experienced our piece of the chaotic outfall from MMC and the resulting mass disruption to the lives of trainees, junior doctors and their families. Less than three weeks notice of relocation (200-500miles), good candidates with no jobs, others with FTSTAs now heading for training abroad, the central appointment process handed back to the local site with 1 week to fill vacant posts. But work goes on, training continues, STs and FTSTAs have sat and passed exams. One of our new ST2s, Finn O'Sullivan, became the 10,000th member to join the Association Of Anaesthetists (no pressure from Hilary) and is to be wined and dined and educated for free!

Three long serving consultants have retired this year - Barbara Scorgie in March, Bob McDevitt in November and Sheila Madsen in December. We miss their commitment and contribution to the department, while they have adjusted to life without us very well.

Three new consultants have been appointed. We welcome Mike McMillan and Radha Sundaram to the ICU team and Stephen Jeffries, a generalist. John Dickson became Associate Medical Director for Clyde, continuing as CD for anaesthesia for Clyde, while still working part time in ICU and even giving the occasional anaesthetic between meetings. Who said multitasking was a feminine trait?

Perth Royal Infirmary - Cliff Barthram

There have been some major changes in the PRI anaesthetic department this year. The biggest being the retirement of an anaesthetic giant who tirelessly dedicated his working life to his patients and the service at PRI. As elder statesman of the department there was little Dave Magahy hadn't seen before, his judgement was something we all relied on, and now miss.

Gilly Dockray, perhaps the zaniest secretary an anaesthetic department could cope with, also retired this year. We have welcomed Wendy Laing to the department as our new administrator.

With the reduction in trainee numbers rotating through Perth we have appointed 2 new staff grades: Dr Yevgeniy Kossko, and Dr Ravi Anandampillai. They are

warmly welcomed to Perth. We have also seen the resignation of Dr Mike Bell as our clinical lead. He swears that the health and rejuvenating benefits of this move are remarkable. Dr Michael Forster has been reluctantly press-ganged into the position by 'a higher authority', is coping admirably, and may even be enjoying it.

PRI anaesthetic department continues to be a warm and welcoming team to work in with great colleagues.

Raigmore - Ian Johnston

It would be surprising if many of this year's reports didn't start off on a similar tack - MTAS/MMC and their effects since August 1st. It was interesting (having been allowed to take leave at the beginning of the month) to return in the second week to find what appeared to be an almost completely new department. The new members have all settled in well, however, and so far there have been no major disruptions despite the inevitable increase in workload which has fallen on our middle grade staff. The next hurdle will be the imminent introduction of the "new starts" to the on-call rota.

We are delighted that our previous "new starts" sailed through the whole process and along with our other SHO's were successful in their quest for ST jobs and, despite the uncertainty of the future, all our IMGs progressed to excellent jobs both in the UK and overseas.

Having bid our fond farewells to Ros Lawson following her return to "the little people" in Yorkhill last year, we were delighted to welcome Gordon (blood) Bathgate to the department (a nickname which quickly stuck, not for any sinister reason but entirely due to the horrendous nights on-call to which he has been subjected since his arrival). Gordon and Vanessa have both settled in to Highland life well and we hope his nights will eventually calm down and not drive both of them back down to Tayside! We also saw a new leader in the department, with Sandy Hunter standing down after his three years in office and leaving the seat warm for Chic Lee who, in turn, handed his role as College tutor over to Kevin Holliday. The transitions have been seamless!

On a more sombre note we wish Suzie Dempster well following her ill health so soon after returning to work, and Sheelagh White a continuing recovery from her serious illness and, of course Isobel and David a happier year after the stress of the last few months.

We strive to maintain our northern links in these days of ever increasing governmental health targets - the bridges are all open, the tolls have been removed but little traffic appears on the highways!

Shetland - *Catriona Barr*

2007 has been a year of change in Shetland. Paddy O'Connor, one of three consultant anaesthetic staff here, has moved on after 8 years in Shetland to a Consultant job at Pontefract and Pinderfields in South Yorkshire. We wish him the best of luck in that post. Brodyn Poulton and Catriona Barr are now actively looking for a third consultant who will enjoy the unique challenges and rewards of remote island work. Andrew Cooper remains as a GP anaesthetist and we have three new anaesthetic assistants one of whom is also an ODP.

The department has faced some big challenges this year including the closure of the day surgical ward and the need to formalise a pre-assessment service in order to make the most of our precious surgical beds ahead of introduction of the 18 week target.

On a lighter note Catriona has been running an ENT video-endoscopy clinic monthly allowing the airways of hoarse patients to be seen by an ENT consultant in Aberdeen while she gets extra practice at nasendoscopy. The one day paediatric life support course (AL:SG) has been introduced and run 8 times this year by the anaesthetic department. The whole anaesthetic team have enjoyed excellent training sessions in neonatal resuscitation, stabilisation and transfer and the SCOTTIE course on obstetric emergencies. Brodyn has been to the Intensive Care Medicine meeting in Berlin and Catriona to the Difficult Airways Society meeting. As always in anaesthetics the clinical work is great: it's the hospital politics that can be a challenge!

St John's University Hospital - *Duncan Henderson*

We appointed 2 new consultants in the past year. Congratulations to Aidan O'Donnell and Grant Price. Grant will have ICU sessions with us and at the Royal Infirmary. Samantha Moultrie is also going to share ICU sessions with the RIE. We currently have three excellent locum consultants helping cover the current theatre workload. Thank you to Claire Caesar, Pavel Polovinkine and Morag Renton.

Ross Patterson is now a dad and will have to give up the two-seater soft top. Simon Edgar graduates soon for his MSc in Medical Education. Dan Burke spent a couple of weeks in Nigeria, working with a Plastic Surgery team and Sam Moultrie is currently in Malawi with a team from Dundee (as seen in the Scotsman!).

Southern General, Glasgow - *Kenny Pollock*

MMC has had a significant effect on life at the Southern this year, as at many other hospitals. Trainees endured the ridiculous pantomime of applications and interviews, jobs being allocated based on star signs, pre-

ferred colour, and what you did on your holidays last year. Although a large number of our trainees must have answered those questions successfully, we unfortunately lost a number of clinically excellent people, who had to leave the UK to find work. On the upside the hospital has found the money to employ a dozen hard working traffic wardens.

Building work at the Southern continues at a leisurely pace. The 2 main objectives have been an extension of the maternity building to accommodate offices and a Starbucks, and to place a large number of donation boxes around the hospital's various car parks. Staff and members of the public are able to contribute to the slush fund to build the rest of the new hospital in phases. In a clever marketing move, the proposed introduction of parking charges led to campaigns from staff groups from all over the hospital demanding that the £500 per person per year should be taken from them ahead of anyone else. Others have embarked on military-style planning to get to the hospital by whatever means possible. Senior members of the department have been heard debating whether rollerblades or phat skateboards would be the quickest transport method, given the lack of public transport. On call staff will have a Roman catapult system installed at their home address to ensure a speedy return.

ITU has had a number of changes including Catriona McNeill and Andrew Cadamy joining the department, and Phil Oates making a long planned move to the general rota. Andy Crockett joins us as a Locum consultant from Dundee.

This year's infection crisis at the Southern has led to the unexpected bonus of refurbishment of some surgical wards, eye theatre, and the overhaul of ortho and day surgery theatres. After the successful semi-anonymous leak to the media last year which led to the refurbishment of general theatres, our upgrades will be complete just in time to be demolished to make way for the new 'super hospital'.

No Consultants or trainees were hurt physically or emotionally during the production of this update.

Stobhill - *Roger Hughes*

As I now have reported for several years in a row, despite our being told of Stobhill's imminent closure as an inpatient site absolutely nothing has changed clinically in the last year. This is a source of great satisfaction for those of us who are happy with our current lot. However looming over our Anaesthetic Offices is the massive bulk of the new ACAD which will certainly increase the amount of Day Surgery when it opens in 2009 but the closure of the rest of the hospital, which it was assumed

would happen then, will not happen until they find space for the patients on the GRI site.

As in the other Glasgow sites a new parking regime will kick in shortly and we will have to hand back this years pay rise for the privilege of coming to work. The official reason for this is to stop people parking in the hospital free and going off to work in town. This is viewed with a great deal of scepticism as the transport links to here are pathetic and there are virtually no legal forms of work in the area around Stobhill.

There have been very few Consultant staff changes - no retrials. Jack McKellar has finally been replaced by Ravi Agram and Martin McCormick is going to go on Nights here and doing a day session - the rest at GRI. As a result of MMC juniors rotate through here at a dizzy rate but so far everything seems to work. As mentioned last year our junior rota has merged with the Royal and our secretary Susan arranged a very pleasant meal, this spring, for current consultants and the last five years worth of juniors, nearly all of whom were doing well.

On the reproductive front Lisa Manchanda has returned to her Chronic Pain sessions having produced a boy and after a brief return Susan Smith went off to give birth to another girl - the 4th. This apparently was very dramatic appearing in the car on the way to the Queen Mothers as featured in the Glasgow Evening Times. Those of us with four daughters used to boast that this was due to the number of anaesthetics we gave. As for me this was in the 1970's I'll pass this mantle on to Grant Haldane (the proud father).

The Top Left Hand Corner of the Weather Map - Stormy, but Maybe More Sunshine Later.

Stornoway - Andrew Hotherhall

Douglas Adams was said to love deadlines. He particularly liked the whooshing noise they made as they flew past.

This particular one has been frustrated by "their" deciding to make me Interim Lead Consultant with ten days to go to my opening night as Wishee Washee in this year's pantomime, and I've been running hard to slip only slowly backwards ever since. Old age must be catching up on me. Actually I thought I had managed to get away with it this year, but with five weeks to go I ill-advisedly succumbed to a combination of coercion and flattery as the person originally ear-marked for the part was going to be in Australia. I reckon I had more prompts in my first scene on stage this year than the total in my life before.

The political situation in the Western Isles Health Board

continues to gash one's flabbers. We are now on our tenth Chief Executive in fourteen years, if you count the same one twice, but perhaps this should not surprise us. After all, a councillor in the anaesthetic room once remarked to me that only in the Western Isles could you have a schism in the Episcopalian Church. None the less, this constant change of "leadership" is unsettling.

The atmosphere has, in fact, become somewhat more optimistic than last time I wrote, though the process of getting to where we are now has been very painful and we still have a long way to go. Two years ago we had a cumulative deficit of three million, and the regime of the time made itself very unpopular with its draconian efforts to ineffectually stem the flow, largely through unsustainable bed closures, though curiously two years later we are now managing reasonably well on less beds than was then attempted. That's statistics for you. Their recantation was too little, too late for the Unions, who got their teeth into them like a Rottweiler and wouldn't let go, and indeed won't let go even today. Memories are long in the islands.

The result was Andy Kerr sending in the Hit Squad, sorry, Support Team. Within weeks the Chairman's status changed from sick leave to resignation, the Chief Executive "sought" secondment elsewhere, the Board Medical Director went on protracted sick leave to the end of his contract, the Hospital Medical Director resigned, not to be replaced, and his deputy (guess who)'s services were no longer required. This left the Community Medical Director to be upgraded to the post of Interim Medical Director to the Board. With me so far?

Unfortunately said Community Medical Director was viewed by the consultant body as the principal remaining progenitor of the Primary/Secondary Care divide, elaboration on which would require an article of its own. Suffice it to say that it appears to be much worse here than elsewhere; indeed few of my mainland colleagues seem to even know what the term means. Throughout the reign of the Hit Squad it was difficult to ignore the culture of Primary Care Good, Hospital Bad, and the morale of the consultant body hit an all time low, with many threatened, and a few fulfilled threats of being awa hame wi' their ba's. Kenneth Clark in the television series "The NHS is safe with us" admitted that the Tories hadn't the faintest idea what they hoped to achieve; they just knew that if they smashed it up and waited to see how the bits settled it had to be an improvement. It seemed when the Hit Squad came to the end of their term of appointment they had effectively followed a similar policy, with a further deterioration of the financial deficit by another half million or so.

The good news, and cause for optimism, is that there

seems to be a genuine desire in the new CEO to make things move on, and institute a policy to attack the Primary/Secondary Care divide, one part of which is the institution of Lead Consultant in an effort to make the consultant body feel less isolated.

One positive outcome of the Hit Squad reign was their commissioning a visit from John Colvin and Paul Wilson, to whom I am deeply grateful for effectively vindicating what I have been trying to achieve here over the years. In particular they identified the potential value of Island Health Boards as a microcosm for teaching the political and managerial processes to trainees. It could be a baptism by fire.

Stracathro Hospital - Charlie Allison

The core group remains two (Jan Beveridge and me), supplemented by the Dundee "Travelling Wilburys" now with Nicki Thomson, transferred at enormous cost from Aberdeen. Our independent treatment centre will open evenings & weekends about now, bringing back joint replacements, supported by a mini HDU and RMOs with two years anaesthetic experience (where will they get them from?)

In the summer I had four months off with a nasty vocal cord carcinoma, successfully zapped by Lesley Colvin's better half Richard Cassasola. Flexible laryngoscopies (without anaesthesia) continue to check all remains clear. Keep healthy, and be lucky!

Victoria Infirmary - Neil Smart

Life is hard, or since this is the Victoria, *al dente*, with only two consultants able to stretch their budgets to a car parking permit! Everywhere is within walking distance if you have the time, although ENT at the Southern is stretching it a bit, but in a classic case of 'déjà vu all over again', we saw Alan Brown, Fiona McHardy, Deepa Singh and then Gordon McGinn all incapacitated by lower limb injuries requiring surgery. The odd one out was Jenny Cuthill with an upper limb fracture. Needless to say, our lottery numbers haven't come up either. All now thankfully recovered.

Across the road, the crescent shaped façade of the new Victoria ACAD is almost complete and the project is on schedule to open in 2009. To quote the architects, it will boast a 'comprehensive Healing Arts strategy based on the generic theme of sustainability in the context of healthcare'. We have suggested a 'sweeping, dynamic and accessible exhibit, mechanically themed and grounded predominantly on the static but with a frisson of the fluid'. Also known as a car park.

The existing Victoria site was originally scheduled to close around the time that the new hospital opens but

may stay open longer than originally anticipated if progress with the new South Glasgow Hospital is delayed. To prepare for the next 50 years, we splashed out and had the department repainted, this time a sublime shade of beige.

September marked the retirement of Elizabeth Wilson, our much loved secretary, who devoted over four decades to the Health Service. We wish her all the best and welcome Liz McIntosh as her replacement. Congratulations also go to Rahda Sundaram, appointed as an ICU consultant at Paisley, and Steve Jeffrey, who took up a consultant post in the same department. Graham Gillies stepped down as Lead Clinician to be replaced by Neil Smart.

Notable achievements over the year included the appointment of Gavin Gordon as Chronic Pain Tsar for Glasgow and the acceptance of yet another academic commitment by Ronnie Glavin, this time with NES. Ladbrokes are now offering odds that Ronnie will end the year with more sessions than Airdrie United have points.

Wishaw General Hospital - John Martin

Retirals: As predicted last year, George Harvey left at the start of April after 28 at Law/WGH. Following closely at his heels, Alan Wright jumped this ship to spend a more enjoyable sail in the Firth of Forth after 26 years at Law/WGH. Never again will Alan's incisive barbs and sharp observations lighten our days.

Arrivals: Despite our assertions that the above are irreplaceable, we appointed Dr. K Razouk in March as Consultant with Obstetric Anaesthetic interest, Dr. Raj Padmanabhan in April, whose interest lies in the Difficult Airway, and Dr Tamas Szelei whose interest lies in Intensive Care. At the same time, one of our locums, Dr. Z Kusnirikova was officially appointed as Staff Grade, and Dr. Srinivasan from Monklands was appointed as Staff Grade also.

Recently at a round of interviews we appointed three further consultants who will join us in due course. Dr. Iain Lang, with an interest in ITU, Dr. Gizzy Mathew with an interest in Obstetric anaesthesia, and Dr. Colum Slorach to swell the ranks of the generalists.

MMC created havoc for our beleaguered trainees, and their disgraceful treatment at the hands of the NHS should shame us all. The resultant change in our trainees brought a cohort with varying experience, all of whom are settling in well.

Recent changes in Holyrood threw a spanner into the works of NHSL, and after years of negotiations and

planning (?), the light at the end of our staffing tunnel has been extinguished for the foreseeable future while Alex Salmond and his colleagues play with NHSL for political ends. As noted last year, Nadia Hodsman has been officially appointed Assistant Clinical Director to Rory MacKenzie.

What next? Who knows? In my 21 years as Consultant at Law/WGH I have been exposed to too many management reshuffles and bright ideas to take much of it seriously. There is always sure to be another Baldrick round the corner with a new cunning plan. Let's just hope there is a Blackadder to thwart him.

RHSC Yorkhill - Ross Fairgrieve

Greetings. It's the end of another year, a year which finally saw the retiral of Roddie McNicol after a long and distinguished career. We expect he will be spending a considerable amount of time relaxing in the South of France and/or Australia. We wish him well.

This year also saw the implementation of car parking charges for patients and staff, a policy which has generally not been considered popular. However hidden benefits abound as parents and staff can often be found out of puff from the strenuous effort involved in running up and down the hill to replenish the meters.

Plans for the New Hospital remain a bit of a mystery although we understand that the budget has increased somewhat since the initial plans (car parking meters are increasingly costly these days!). Rumour has it that the build is now officially due for completion around 2013 but with Glasgow winning the bid for the 2014 Com-

monwealth Games perhaps no one should hold their breath, although given where it is being built perhaps everyone should!?

Within the hospital itself there have been a few significant changes. The Kelvin Dental Suite is now fully up and running and working well and we hope our colleagues from the Western Infirmary have been made to feel welcome. We are currently short of a general theatre over the festive period while this is upgraded to a state of the art laparoscopic surgery suite. The cynical amongst us envisage the imminent advertisement for the post of Consultant Anaesthetist with an interest in the out of hours laparoscopic appendicectomy! Joking aside this will greatly enhance what is an increasingly useful mode of operating in paediatric surgery. We have also taken delivery of a brand new cardiac cath lab. Unfortunately due to technical difficulties this is currently out of commission while these issues are corrected but hopefully it will be up and running early in the New Year.

From an intensive care perspective things are as busy as ever. Paediatric critical care transport staffing is a continuing challenge and the New Year will see implementation of a consultant anaesthetist based out of hours transport rota to bolster the current system. For those of us concerned this will involve a challenging and interesting case mix as well as exotic travel opportunities!

Finally Judith McEwen and Anne Goldie have added to the complement of female anaesthetic offspring with healthy baby daughters. Pam Cupples broke the anaesthetic mould with another baby boy.

Donald Campbell Quaich

2008 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 2009)

There will also be prizes for the runners-up.

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

Annual Golf Outing

Rosemount/ Landsdowne

June 12th, 2007

Blairstown Golf Club played host to the Society's annual golf outing in 2007. Its two courses, Rosemount and Landsdowne, sit at the feet of the Grampian mountains and their fairways pitch and roll through avenues of trees. The morning began in traditional fashion with bacon rolls before we ventured out on to the Landsdowne course. This is the more modern of the two, designed by Peter Alliss and Dave Thomas, and the more difficult. Conditions were fair but the ball-striking less so and the morning rounds were not speedy as members of the Society spent much time tramping through the foliage.

Martin Watson for Crosshouse claimed first prize in the Stableford competition and Alistair Michie the booby prize despite a more impressive performance in the warm-up competition the previous day. Without labouring the point, Alistair has won this accolade more than once.

A pleasing lunch followed. Conditions deteriorated in the afternoon which saw the annual East/ West contest

take place on the Rosemount course. This was designed by that colossus of the Scottish game, James Braid, with a contribution from Dr Alistair McKenzie who designed the Augusta National course. Rosemount is the easier course, prompting Malcom Daniel to indicate that "there's nothing here to be frightened of, boys, nothing to be frightened of". I could only agree when I saw him cut the corner on a long dogleg par 4 by smashing an enormous drive over a threatening bunker into prime position to attack the green. I felt less certain when he shanked his approach into an unplayable position deep in the heart of a nearby bush.

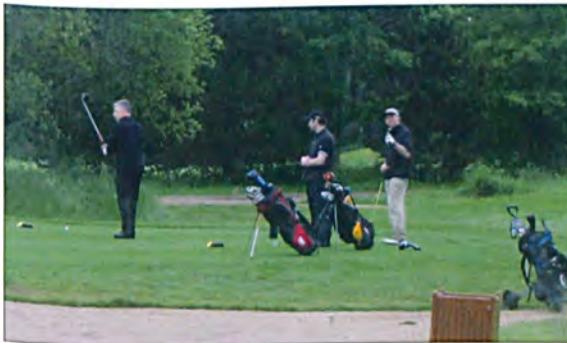
The West team triumphed in the afternoon but there were so few East players involved that it might be more accurate to say that the more West team beat the less West team.

The clubhouse at Blairstown verges on the palatial and it hosted a very agreeable evening meal to round off an altogether excellent day.



Martin Watson accepts first prize in the Stableford competition.







**Thanks to the outgoing executive for
all their efforts**