SICS Annual Scientific Meeting 2000

The Society's ninth annual scientific meeting was held on Friday 28th January 2000 in the Cottrell building at Stirling University. The change of venue back to the University was made as space really had been too tight at the Stirling Royal Infirmary Conference Centre. The new venue proved altogether a good move, with a good lecture theatre, tutorial rooms and plenty of space for the trade exhibition within the main circulating area. This seemed to result in the trade stands being well attended by delegates The circulation area also housed the large, high quality poster exhibition, which was won by Dr. Kevin McCaffrey, with one of his two posters, the winning one being on ECMO in the management of pertussis. Parking was very adequate, but seemed a long way to walk in the rain! Had the weather been less inclement one would have been able to enjoy the beautiful surroundings of the Cottrell building with its sweep of lawn down to the lochan and handsome specimen trees.

The meeting itself, the organisation of which was spearheaded by Louie Plenderleith, followed the format of previous years with some plenary sessions and some workshops. This format seems popular with our delegates, an increasing proportion of whom now come from the nursing profession. Organisationally, the meeting ran smoothly with few of the major problems such as non-arrivals and late arrival of speakers which dogged our last Annual Scientific and General Meeting.

Dr Rick van Saene from Liverpool started the meeting in great style by speaking authoritatively and entertainingly on Management of Multi-resistant Organisms in the ICU. The creation of carrier status by the use of antibiotics was graphically illustrated by a study which he described involving 10 students collecting stool samples for 12 weeks, during which time they were challenged with various sizes of Klebsiella inoculum,, treated with amoxicillin and then rechallenged, after which more than 50% became carriers. The logistics of getting students to do anything for 12 weeks, never mind collect all their stool samples was mind-boggling! Warming to this topic of antibiotics selecting for

pathogens, Dr van Saene then talked about cephalosporin and flucloxacillin selection for MRSA. He discussed traditional approaches to reduction in nosocomial infection, emphasising that hand washing reduces transmission but cannot be expected to prevent it if there are high levels of contamination. The effect of choice of antibiotic and an antibiotic restriction policy on the carriage of resistant bacteria were then discussed, together with the time taken for patients to acquire resistant organisms. Having thus disposed of the traditional approaches to the control of nosocomial infection, Dr van Saene then suggested to us that we should be using nose and throat swabs for patient surveillance, and that we should be doing this twice a week, that we should be using "ecology respecting" antibiotics and maintaining a high standard of hygiene. There was just a mention of non-absorbable oral antibiotics too - it was inevitable that SDD came in somewhere! He concluded with the maxim that the aim of an antibiotic policy and of treatment in the ICU should be The Maintenance of Normal Flora. After this we went off to swap resistant organisms over a cup of coffee and to visit the trade exhibition and poster display before splitting into groups for the workshop sessions which took up the rest of the morning session. These were as popular as ever - I find it very difficult to decide which workshops I will not go to - but always the most popular are the case presentations, so I record them here in some detail. Graham Nimmo expertly chaired these sessions and I am grateful to him for this summary, and also to Drs Miriam Baruch and Lindsay Donaldson who both presented fascinating patients with flair and enthusiasm.

Dr Lindsay Donaldson, then SpR in Ninewells Hospital Dundee chose a topical subject with her case 'Where's the 'flu zone?' The case was that of a 67 yr old lady with a history of 'flu and a chest infection. The patient was initially tachypnoeic and hypoxic, staphylococci were isolated from blood cultures and appropriate antibiotics were commenced. Over the next two days she developed renal failure and worsening respiratory function. She was ventilated in Perth Royal Infirmary prior to transfer to Ninewells due to lack of beds in the base hospital. It was clear that this situation was quite familiar to all members of the audience. Renal function declined requiring renal support, but by day 14 she was weaned from ventilation and extubated. Within a few hours she was tachypnoeic, distressed and desaturating. She was re-intubated propofol and suxamethonium being used to facilitate this. She developed a profound bradycardia and peaked T waves on the ECG associated with hyperkalaemia.

Over the following week she was again weaned but it became apparent that she had no movement in her upper limbs, little movement in the lower limbs and absent deep tendon reflexes. Discussion ensued with the audience about neuromuscular disease such as critical illness polyneuropathy, Guillain-Barre syndrome and the like. The diagnosis of Guillain-Barre was confirmed with electrophysiological studies and plasma exchange commenced. The 'Blue rhino' technique of percutaneous tracheostomy was used to secure her airway and she gradually improved being ready for discharge on the 34th ICU day.

This case allowed discussion of double diagnoses and highlighted the need for 'lateral thinking' and reassessment of initial diagnosis. The hyperkalaemic problem allowed review of the contraindications to suxamethonium and a poll of the audience demonstrated that a wide variety of anaesthetic techniques would have been used by different clinicians. Overall, the case reminds us how important it is to delve deeper in some apparently straightforward cases, and also that presentation of case where progress has not been absolutely smooth is critical for continued learning and teaching.

Dr Miriam Baruch then a Clinical Fellow at western General Hospital Edinburgh presented a case of an unusual illness masquerading as a more common condition. A 39 yr old teacher was diagnosed with antithrombin III deficiency and anti-cardiolipin antibody syndrome in 1988 following a proven

DVT. He was anticoagulated with warfarin. This presentation was with abdominal pain and nausea, with initial thoughts of pancreatitis, peptic ulceration or bowel ischaemia, none of which was subsequently confirmed. Standard supportive treatment was instituted and later that night he developed headache with GCS E4V4M6. CT scan of head showed apparent changes of subarachnoid haemorrhage. GCS fell to E1 V2 M5. He was anaesthetised, paralysed, intubated and ventilated and required vasopressors to maintain MAP. Within 24 hours he was weaned and extubated and was again GCS15. He was transferred to Neurosurgical care. Over 48 hrs he developed respiratory distress and was re-intubated and ventilated. Further problems with sepsis and septic shock were treated conventionally but his GCS was now 3 off sedation. Cerebral angiography was normal.

Expert Rheumatological advice had been sought and a differential diagnosis of microscopic polyangiitis, lupus or catastrophic antiphospholipid syndrome was made. Immunosuppression with methylprednisolone and cyclophosphamide was started and plasma exchange added 5 days later. Within 4 days of this he was weaned and extubated at GCS E4 V4 M5.

His course was complicated by bacterial and fungal septicaemias but he was transferred back to the referring unit 22 days after admission to hospital, and subsequently home. The diagnosis of catastrophic antiphospholipid syndrome was confirmed, and the diagnosis of subarachnoid haemorrhage was not. This case provoked discussion on communication, the role of specialist referral in the ICU and the risk/benefit balance of immunosuppression under ICU circumstances.

Both cases were very well received and we look forward to the presentations from Aberdeen and Glasgow in January 2001.

The other workshops included a pithy and concise presentation from Dr Rick van Saene on "What the ICU Doctor needs to know about Bacteriology" (a very useful 45 minutes). In this he cheered me up no end by his assurance that of the "billions of bugs" only 14 were really of any importance to us! There was a discussion about the value and organisation of ICU Follow-up Clinics headed up by Pat Harper of Edinburgh Royal Infirmary and Steve Marjoribanks from Aberdeen which was very well received by those who attended it. The remaining workshop was a very useful presentation (with lots of audience participation) on Ethical Issues in the ICU by Malcolm Booth of Glasgow Royal Infirmary. He discussed the Incapacitated Adults bill, and then told us what was so far known about the Adults With Incapacity (Scotland) bill. This was encouraging as it appeared to legitimise some of the things which we already do, without being too prescriptive or proscriptive.

After lunch we were treated to a dissertation on Organising the Management of the High-Risk Surgical Patient by Dr John Wilson from York. He initially led us to think that this was going to be a very straightforward session by saying that the whole secret was to get the right patients, give them the right treatment in the right location and at the right time. (Well, we all know that, but the rest of his talk was directed at helping us to actually achieve it!) He posed two questions: "Does manipulation of DO2 before and during surgery affect outcome?" and "Does the choice of inotrope matter?" The first rule in politics is to never ask a question unless you already know the answer, and Dr Wilson clearly knew the answers to these! He described a trial involving three groups of patients, one of which were managed pre-operatively in whatever manner was the norm for that team, the other two groups were actively managed in the ICU with PA catheter guidance, both with increased fluid and then with either adrenaline or dopexamine. Fluid was given until the PA occlusion pressure was 12-14 mmHg and then inotrope increased until target O2 delivery was achieved or until side-effects precluded further increment. Post-operatively the study groups were cared for in HDU/ICU and were given inotrope to optimise DO2 for 24hrs, whilst the control group was managed in a standard manner in whatever environment was most appropriate. The study showed the adrenaline

group to have a small improvement in both complication rate and length of stay over the control group, but the dopexamine group showed a substantial improvement in both these areas. He went on to cite several more well-referenced studies, including a study from his own unit, demonstrating the importance of optimising DO2, the good prognostic significance of a baseline DO2 of >600 and the value of POSSM combined with the baseline DO2 as predictor of outcome. Following this, Dr Wilson touched on the value of cardiopulmonary exercise testing and the anaerobic threshold, quoting from papers by Older from Melbourne published in Chest in 1993 and 1999. There are of course some pitfalls to providing this level of pre-operative care, which include (non) availability of resources such as equipment, space, time and appropriately trained staff. He concluded his excellent talk by posing some more questions (to which he may or may not have already known the answers):
-Can cardiopulmonary exercise testing identify patients who would benefit from goal directed therapy?
-Would less invasive regimes such as using an ODP be as effective?
-How important is the manipulation of the inflammatory process, and is this due to dopexamine?

After tea and another visit to the trade exhibition Dr Mark Dearden (ex Edinburgh, now working in Leeds) addressed us on the topic of Management of Head Injuries Out with a Specialist Centre. I initially thought that this was going to be the shortest session of the day, as he started simply by saying "DON'T". However he then presented some statistics about head injury and went on to talk at some length about secondary injury resulting from hypoxia and hypotension, stressing that raised intracranial pressure is much less important than is hypotension. He went on to outline the factors which have a significant influence on outcome viz. primary injury severity, early management both at the site and in the resuscitation room, correct and timely referral with safe conditions for transport, and finally early treatment of residual injury He then went through management at the receiving hospital at some length, stressing the point that early intubation and prevention of hypoxia is really the key to successful management, together with the prevention of hypotension. He reminded us that a systolic BP of less than 90mmHg is associated with an increase in mortality of two or three times. After this, CT scanning determines management. He felt that coma, head injury associated with multiple injury and known skull fracture with a GCS of <15 were the indications for urgent scanning, but that all patients with head injury and GCS of<15 should receive a scan, NOT a skull Xray. Dr Dearden then reviewed the Society of neurosurgeons indications for transfer to a neurosurgical unit viz: continuing coma after resuscitation, deteriorating conscious level or inability to perform urgent CT scan locally. He again stressed that good resuscitation and stability, NOT time to the neurosurgical unit was the important thing. As a consultant anaesthetist who is frequently involved in the management of head injuries in a District General Hospital, I found the clear, practical guidelines given by Dr Dearden very useful.

Editorial

This is the sixth Annual Newsletter - the first being pioneered by Alf Shearer in 1995. You may wonder in this electronic age why we still have a paper newsletter when all you need to know can be found, (bang up to date, and including the most recent newsletter) on our website. (www.scottishintensivecare.org.uk). Well, one of Alf's intentions when he first conceived the Newsletter was that it should serve as a continuous record of the activities of the Society, and as we all know, the contents of a web page can change or disappear as fast as a bottle of wine at Hogmanay! So the Newsletter continues.

I regret that there are not more photographs in this year's Newsletter. This results from a faulty brain-camera interface which I suffered at the scientific meeting, and which resulted in some very grainy foggy shots. I shall have to buy a new flash before next year's meeting. I must apologise to Phil Oates (Southern General, Glasgow) for failing to reproduce his excellent prize-winning logo which he designed for the Scottish Intensive Care Society. Sorry, Phil; it will be all over next year's newsletter!

It will be proposed at this year's Annual General Meeting that,, for the first time nurses with an interest in intensive care should be eligible for some form of membership of the society. This reflects the way that the society embraces the interests of all those working in the intensive care field.

As I write this we are just entering the period of peak winter pressures. I hope that by the time you read it we will be through the worst of them. Great efforts have been made, particularly by your council and especially Cammie Howie to make things run a little more smoothly in the winter of 2000-2001 than they did in the winter of 1999-2000, but of course neither Rome nor intensive care beds can be built in a day, and even if more intensive care and high dependency beds can be conjured up, I suspect that most units will be in the same pickle as we are at the Vale of Leven - not enough adequately trained staff to run them. This is not surprising when a newly qualified London based staff-nurse earns about the same (including her London weighting) as a Member of Parliament gets in his London Allowance alone! Perhaps things will improve next year.

On a more cheerful note I would like to tender our congratulations to Mark Livingston, who put so much into audit in the Scottish Intensive Care Society for so long. He received his PhD on 2nd December 2000.

President's report

The most important event of the past year has been the publication by the Scottish Office of the report entitled "Better Critical Care". Many members of the Society contributed to this but a special vote of thanks must go to the Immediate Past President, Cammie Howie who had a major hand in bringing it to fruition. The Society organised a multi-disciplinary meeting on 8th November to discuss implementation of the report and this was well supported with representation from all parts of Scotland. While most Trusts have established a Critical Care Delivery Group, implementation of the report's recommendations is at an early stage and much work remains to be done, particularly in developing escalation policies, integrating intensive care and high dependency staff and developing "patients at risk" guidelines. A major concern emerged regarding the funding (in excess of £6 million) provided to Health Boards last February and intended for the improvement of critical care services. Less than half the ICU's in Scotland appear to have received any material benefit from these monies and a significant residue appears to have disappeared into black holes in Trust budgets. The Society will pursue this matter centrally to ensure that the funds allocated are spent appropriately. The Society has much to be proud of. The Audit is a major achievement and has spawned the Bed Bureau. The most important feature of the Society however, is the way in which all involved in critical care in Scotland, medical, nursing and paramedical, are willing to co-operate in a constructive and creative manner. The Society is seen as a mature and credible voice in collating information on need and outcomes and developing standards for quality services. That voice will be required, in combination with clinical governance initiatives, to ensure that the recommendations in "Better Critical Care" are implemented by the Scottish Executive. There remains a shortage of critical care

facilities in Scotland and the Society will assist its members in ensuring that appropriate resources are provided to guarantee our patients the services they deserve.

In addition to these political and practical imperatives, the Society is developing a research base for co-operative studies in critical care in Scotland. The activities of the Research Group will be reported at a meeting in Stirling on the afternoon of Thursday 25th January 2001 preceding the Annual Scientific Meeting which takes place on the following day. The Annual Dinner will take place on the Thursday evening; I hope that as many of you as possible will attend these functions to cultivate not only the scientific basis but also the social interface on which the future of our Society depends. Happy New Year!

Peter G M Wallace.

Training in Intensive Care Medicine

Intensive Care Training is currently in a state of chaos. This is despite some notable advances such as the recognition by the STA of higher training in intensive care as leading to a joint CCST in ICM and the base specialty of the trainee. A number of difficulties arose with tensions between the Inter Collegiate Board in Intensive Care Medicine (ICBICM) and the lead college (Royal College of Anaesthetists). Latterly difficulties have arisen due to the reluctance of the Postgraduate Dean to approve, on employment law grounds, posts which specifically exclude eligible candidates from certain disciplines, for example advertising posts out with a training program which specifically excludes anaesthetists. (This sounds confusing but is clarified in the next paragraph).

The current proposed plan is to have 2 types of higher training in intensive care. One would be for anaesthetists within an anaesthetic SpR training program in this. Following appointment to a SpR post in Anaesthesia the trainee would be eligible to apply for advanced training in ICM. This would normally take place after completing a total of 6 months ICM as part of years 1 and 2 of the SpR program and would be for 1 year , in other words a total of 18 months at SpR level. This would lead to a joint CCST in Anaesthesia and ICM. The other way into higher training would be from other disciplines such as A & E, Medicine or Surgery. This would be open to SpRs in these disciplines and would be for 18 months out of program, again leading to a joint CCST in the base specialty and ICM. It is the latter posts that the Postgraduate Deans are unsure about. Until the legal aspects are sorted out it is likely that subspecialty posts will be advertised in ICM, with training components suitable for advanced training, but that these will not lead to the dual CCST.

The manpower issues relating to numbers of posts is still under discussion. The number of anaesthetic posts with higher training in ICM was planned to be 7% of years 3,4, and 5. In Scotland the manpower projections put the total number of posts at around 9.

What are clearer are the entry requirements for training. It is becoming accepted that eligibility for advanced training depends on suitable training at SHO level and this is 6 months anaesthesia, 6 months medicine and 3 months ICM. In order to facilitate this training a number of SHO schemes are being developed to provide rotations through these disciplines usually with an A & E component as well. The documents relating to competency are currently under consideration by the RCA and it is certain that all trainees in ICM, whether they intend to pursue a career in ICM or are merely undertaking training as part of their base specialty will be be required to demonstrate minimum competencies.

The current Diploma in ICM is still attracting few applicants. This exam has a 64% pass rate and requires a dissertation and a log book. It is currently not a requirement for Consultant appointments but it is likely that it will become a factor that is taken into consideration by an appointments committee.

So what is the advice for trainees?
-For those going into anaesthesia , or in the first years as an SHO, with the intention of becoming consultants with an interest in ICM - Do a minimum of six months general medical receiving at SHO level. Proceed up the anaesthetic training grades, keeping a log book, achieving the required competencies, gaining FRCA, research and audit experiences then apply for posts in ICM from your SpR post. Hopefully by then this will give you a joint CCST.

-For those in Anaesthetic SpR posts
If you want to have a major commitment to ICM you will probably need the more advanced training and so the medical experience will need to be gained as time out if you do not already have this. In the absence of agreement on the joint CCST, the posts that are advertised in ICM will provide the necessary, training to an equivalent standard as a CCST program, and this would be the best available training. If you only want a few sessions in ICM then current training in ICM within the anaesthetic program may well be sufficient but appointment will depend upon the competition at the time.

-For those planning an interest in ICM from a non-anaesthetic discipline.
The requirements for SHO training should be met and then proceed to SpR training in your discipline. Then apply for free standing ICM SpR training out of program. This is a lengthier program and currently there are few posts advertised at Consultant level ICM sessions. It is impossible to predict at this point how difficult such a career path will be.

The future?

Hopefully, joint CCSTs, competency based training, a simpler exam for all interested trainees, clear guidelines on training and no major changes in the training programme for a few years.

John Kinsella Regional Advisor in Intensive Care Medicine, West of Scotland

The Irish Diploma of Intensive Care Medicine

Last summer I had the "pleasure" of being an external examiner at the Irish diploma examination, which is held under the aegis of the Conjoint Board of the RCP and SI for the Irish Board for Intensive Care Medicine. To be eligible to sit the exam., candidates must hold a Fellowship/Membership in their parent specialty, and have accumulated 12 months training made up as follows:

1. 6 months in ICUs recognised by IBICM. The 6 months must be taken in periods of not less than 2 months accumulated over a period of no more than 3 years.
2. 6 months, the content depending on clinical background of candidate (basically medicine for anaesthetists; anaesthesia for physicians etc)

There is a comprehensive statement of aims, objectives and syllabus to guide candidates.

The actual examination consists of an MCQ, 60 questions grouped in fives, but without a common stem, after which came six 10 minute short essay questions, on discrete areas of intensive care

knowledge followed by two 30 minute long essay questions, on more diffuse subjects, the total time available being 2.5 hours.

The clinical examination carried out in the General & Neuro ICUs of Beaumont Hospital on 15 June consisted of a major case (30 minutes) and two minor cases (15 minutes each), seen in situ in ICU. The former consisted of a brief potted history, then perusal by candidate and examiner of the daily 24 hour chart, drug and associated documentation. In possession of this introductory information the candidate then examines the patient in an interactive way with the examiner. After presentation of the case by the candidate, there is a discussion of issues raised.

The minor cases focus on either clinical signs, a device or procedure or on A specific clinical examination. In the afternoon, back at the Royal College of Surgeons at St. Stephen's Green, the oral examination consisted of 2 vivas, each split into two parts. The clinical investigations/measurements one was split into 10 minutes on X-rays, and 10 minutes on ECG and laboratory data (different pairs of examiners for each). The other, more clinical, viva was also split into two 10 minute halves with different pairs of examiners. The questions were agreed at the previous night's examiners' meeting, and were the same for each candidate.

All in all this exam provides an excellent test of a candidate's knowledge, clinical skills and problem solving abilities in intensive care medicine. As a qualification, it is not yet widely known, but certainly for trainees with an Irish connection (North or South) it is worth considering. It is expensive - the fee is £IR445 - and it involves a trip to Dublin, but that is not necessarily a bad thing!

Ian Grant.

SICS Intensive Care Medicine Courses

The Scottish Intensive Care Society has continued to hold regular courses in intensive care medicine. The most recent course ran in Dundee in May 2000, 21 trainees mainly from anaesthesia attended the two day course held in the clinical skills unit in Ninewells Hospital. As in previous courses, instructors from all over Scotland willingly and enthusiastically gave a series of lectures, workshops and small group teaching sessions, which received universal approval from candidates.

Unfortunately, the autumn course planned for November in Aberdeen, had to be cancelled due to inadequate numbers. Several reasons were given by trainees for this, but essentially came down to inadequacy of funded study leave. This is naturally disappointing and of great concern to all concerned in the organising of these courses and we now have to discuss our options, whether to continue with two courses per year or whether to run just the one course in the Spring, comments and suggestions are very welcome.

Sally Crofts

The electronic bed bureau

Towards the end of 1999, attempts were made in GGHB to form a network of the audit computers by modem and then via the NHSnet to a central server, thus enabling rapid identification of available beds and facilitating effective transfer of patients, when required. Following both the winter pressure in January 2000 and further discussions, it was agreed that comprehensive use of the audit software in Scotland and the availability of the NHSnet, offered a unique resource and opportunity

to network all ICU audit systems to a central computer. This process has been evolving throughout 2000 and we now have a unique, functioning, electronic bureau of adult general intensive care beds in Scotland. A test of it's value will arise over the coming winter months. The facility enables the transmission of real-time bed availability data to a central server in the SICSAG office, which can then be accessed remotely in each ICU. This avoids the cycle of calls that have previously been central to the process of locating suitable ICU beds. Evaluation of the system and modifications to the software will continue to be made to fulfil the requirements of the participating ICUs and the SICS. Plans are afoot to have trends in occupied beds available on the bureau, thus providing an 'early warning' system of increased demand.

Fiona MacKirdy

SICS Research Committee and Clinical Trials Group

It is almost 2 years since a group of us got together to discuss how we could build on the Audit Group's work and on the wardwatcher network to develop a mechanism for delivering outcome-based research into intensive care practice. We felt that the co-operation of intensive care doctors and nurses built up in successfully collecting clinical and workload data could be extended into both epidemiological studies of specific conditions, and into randomised prospective studies of certain ICU treatments.

Following the initiative of John Kinsella and David Noble, we have established a structure to achieve these aims. The Clinical Trials Group is analogous to the Audit Group and comprises all those clinicians and units who wish to participate. The efforts are supervised by a Research committee, led by John Kinsella, and comprising myself as council representative, Simon Mackenzie, David Noble, Alf Shearer, Mark Worsley and Fiona MacKirdy, ensuring that all 4 academic centres are represented, and also DGHs and the Audit Group.

The Research committee invites submissions for clinical trials, and if it approves in principle, establishes project groups to pursue each study. We are establishing links with the Multi-centre Research Ethics Committee (MREC), Health Services Research Unit and other relevant departments.

So far, two/three project groups have been established:

1. A blood transfusion group under John Kinsella, with Drs Walsh, Garrioch, Daniel and Fletcher is up and running. An audit of current practice has been carried out, and a study of the effect of the recent Canadian study on ICU haemoglobin concentrations and transfusion requirements. The ultimate goal is a prospective study on target haemoglobin concentration and outcome using leucodepleted blood.
2. Nutrition: There are two areas of investigation here.
2a The effect of glutamine supplementation of TPN. Led by David Noble and Peter Andrews, this group is developing a protocol and seeking funding for a study to establish whether glutamine supplementation of TPN improves outcome from critical illness.
2b. Effect of enteral immunonutrition using "oxepa" (containing eicosapentaenoic acid, gamma-linolenic acid and anti-oxidants) on outcome from critical illness. A group led by Tim Walsh and Sandy Binning is preparing a limited pilot study in 4-5 ICUs before considering a full-scale RCT.

In addition, the results of last year's ARDS epidemiological study are being analysed by Martin Hughes, Fiona MacKirdy and myself with considerable statistical help from John Norrie, of Glasgow University and initial results have been presented, with a first paper in the offing.

There is scope for further such epidemiological studies; acute renal failure has been addressed, but there is certainly scope for accurate data collection on many aspects but SIRS and septic shock including incidence and outcome which would almost certainly prove fruitful.

Finally, by the time you read this we shall have held our first Annual Research meeting. (on the day before the Annual Scientific Meeting.) This will allow us to hear from an expert on the conduct of multi-centre research in intensive care, Dr Paul Herbert, to develop and hopefully finalise our blood transfusion and nutrition protocols, and to hear, in a friendly and co-operative atmosphere, presentations of original research. We are making progress; - it seems very slow, but hopefully it will not be too long until our first multi-centre trial begins.

News from regional societies

West of Scotland Intensive Care Society

The Society, now in its 12th session, continues to flourish and attracts support from both medical and paramedical staff. We continue to try and produce a programme with wide appeal. The meetings take place thrice yearly in the Ebenezer Duncan Centre at the Victoria Infirmary. The meeting proper at 1900 hours is preceded by a buffet at 1830 hours and all are welcome to attend. This year's programme has comprised so far Dr Mark Elliott from Leeds speaking on Non-invasive Ventilation in October. We have a proposed meeting for 13th March 2001 which will take the form of Registrar Case Presentations and our final meeting of the season and the Annual General Meeting will be preceded by a lecture from Professor Cohen on Therapeutic Advances in the Treatment of Septicaemia. Further information can be obtained from our Honorary Secretary.

The present Committee is comprised of :-

President Dr J Dougall, Western Infirmary, Glasgow
Honorary Secretary Dr A Davidson, Victoria Infirmary, Glasgow
Treasurer Dr J Kinsella, Royal Infirmary, Glasgow
Committee Member Dr B Cook
Committee Member Dr P Oates, Southern General Hospital, Glasgow

South East Scotland Society

The South East Scotland Intensive Care Group has had a busy year with six meetings held across the region. A short AGM was held in February at the Western General Meeting and a change of office bearers took place. Following Dr Ian Armstrong's departure to New Zealand the post of Regional Advisor in Intensive Care Medicine had fallen vacant. Dr Ian Grant was proposed and was unanimously supported by the group and has gone on to take up the post.

high standard, usually with an invited speaker and /or local case reports. This usually results in a stimulating discussion (no, not an argument!) reflecting the range of views even within this small region. Despite this attendance at meetings can only be described as steady, particularly over the summer months. To reverse this trend the Autumn meeting underwent a radical revamp. Dr Saxon Ridley from Norwich was invited to come and speak about the future of HDU care. Free food was

provided courtesy of the trade. With Dr Ridley's highly entertaining and thought provoking talk the evening was a great success and had an excellent turnout.

To follow on the success of last year the group is planning four meetings for 2001, three in individual hospitals and one large central meeting with food and an invited national speaker.

Provisional programme for 2001

27 th Feb, Western General Hospital; Dr Nick Hirani from respiratory medicine will speak about the pathophysiology of ARDS.

25 th April, Paediatric ICU meeting at RHSC.

15 th May St Johns Hospital presenting.

Oct/Nov, Edinburgh TBA. Invited national speaker

Office Bearers:

Chairman: Dr Alistair Lee, Edinburgh Royal Infirmary

Secretary: Dr Charles Wallis, Edinburgh Western General.

Treasurer: Dr Alasdair Mackenzie, Queen Margaret's Hospital, Dunfermline.

SICSAG Meeting Oct 2000

The Society's 6th Annual Audit Meeting was held on Friday 27th October 2000 at Stirling University

After welcoming delegates to the meeting, Fiona MacKirdy reviewed some of the work done since the last meeting, presenting preliminary results of a recent review of nursing establishment in Scottish ICUs and demonstrating the pressure on ICU beds in January 2000.

Fiona then introduced the first guest speaker, Nick McNeillis, SpR in Anaesthetics and ICU, Queen Victoria Hospital, East Grinstead, who presented 'UK Audit of Burns in ICUs'. His postal questionnaire received a 100% response rate (I must find out what inducements he offered!) with 35 different types of burns units identified, both adult and paediatric. Nick identified a diverse number of scoring systems in use including APACHE but discovered that there is currently no national standard scoring system applied to ICU burns patients. He identified the need to develop a national database for burns patients within existing audit frameworks.

There followed a synopsis of the studies being initiated by The SICS Clinical Trials Group, introduced by Ian Grant. John Kinsella, representing the Blood Transfusion Research Group, highlighted the current international interest in blood and blood products and explained the initiative behind the establishment of the group, emphasising that we have "little knowledge of what we do and why." He identified some of the technical hitches encountered so far: the databases in haematology and transfusion are difficult to combine and not routinely done. However, a snapshot of activity by the group recognized that the trigger for transfusion is falling, as is the use of blood. John proposed to present all the data in the January meeting. In the meantime the group will continue to seek combined support from units and funding bodies and will aim to establish a rolling program of blood and fluid research in Scotland. The Nutrition Research Group is a multidisciplinary group assessing the feasibility of a randomised TPN study in Scottish ICUs, utilising the national database. David Noble reviewed previous nutrition studies before outlining a proposal for a randomised trial in

Scotland. This would be one of the largest TPN trials ever undertaken. Support from the SICS units was invited and further details will be presented at the Research meeting preceding the Annual Scientific meeting in January 2001.

Following this, David Wright, presented a review of two years of mortality audit from the intensive care unit in the Western General Hospital, Edinburgh. A modification to the software enables forms to be generated by the SICS audit computer. One of these forms has patient demographic data and the other asks for comments on patient management by the consultant responsible for the patient. These forms are then assessed by an independent consultant, and any adverse events are identified. Automatic case note reviews are generated in some circumstances such as when a patient has been in ICU for three weeks or more or who has had a readmission to ICU. Dr Wright expressed a willingness to involve other hospitals in a similar audit.

Simon Mackenzie and Cameron Howie then discussed with us some of the issues facing SICS audit. Simon reminded us that the objective was to provide quality assurance and improve clinical care. He explained that CRAG funding has limited duration and bridging funding expires March 2002. He advocated central funding claiming that it offers greater stability whilst control and agenda would be retained by SICS, (vide infra).

After this long morning session, we all retired gratefully for lunch after which Dr Pauline Stuart summarised a recent publication in the Lancet entitled "Consequences of discharge from Intensive Care at night", and then presented a Scottish study on "The Impact of Time of Discharge on Hospital Outcome." She explained that the aim was to investigate change, over time, of discharge at night and whether there were any adverse consequences. Twenty-six Scottish ICUs were involved during the time period 1995-1999. Pauline identified factors which determined patient discharge from ICU as lack of ICU beds (60% night, 10% day) and readiness for non-ICU care (38% night, 90% day). Following adjustment for co-factors, there is no significant increase in the mortality rate in patients discharged at night. The results of this work will be formally written up and submitted for publication. In collaboration with Pauline's work, Dr Malcolm Daniel gave an interesting presentation entitled,"How good are ICU doctors at predicting hospital outcome?"

Martin Hughes presented preliminary results of "A Prospective, observational study of ARDS in a cohort of patients in Scottish Intensive Care Units." In 8 months, 375 patients were diagnosed as having ARDS (8.1% ICU population, approx 15 per 100,000 Scottish population) with an ICU mortality 53.1% (C.I 43%-58.2%), an APACHE II score 21.95 (C.I 21.2-22.7), a mean age of 56.8y and a mean ICU length of stay 14.6d (median=11d). Of these patients ¾ were diagnosed in the first 3 days of ICU admission.

Following this, Steve Noble presented a study of Renal Replacement Therapy (RRT) in Scottish ICUs, with an emphasis on assessing the impact on outcome of creatinine concentrations at the establishment of RRT. The study examined RRT in 529 admissions, 51.1% male (n=276), Age 58.7 (mean) S.D 8.7, APII score 25.1(mean) S.D 8.7, SAPSII score 51.6 (mean) S.D 16.8. The mortality of patients requiring RRT remains high and increases with additional organ system failures (OSF). He noted that outcome was better in those with higher creatinine at initiation, explained, possibly, by fewer OSF.

Looking forward to our future software needs, Brian Millar, Critical Care Audit Ltd, gave an update on current developments in this field. These include the success of the electronic Bed Bureau, online in 22 SICS units, at time of writing, although network problems are hindering a modest few. He promised that the Bed Bureau would be programmed to offer a geographical preference when

selecting units for patient transfer. The problem of 'closed' and 'funded' beds caused much debate on the interpretation of bed availability especially in combined ICU/HDUs. The points raised during the subsequent discussion will be considered and if appropriate and feasible, incorporated into "Wardwatcher" so that the effectiveness of the Bed Bureau might be optimised.

A significant variation in expenditure has been identified in a recent study of 21 ICUs in the U.K. The Critical Care National Working Group on Costing determined possible reasons for this variation in a larger sample of 51 ICUs over the financial year 1988-1999. This group was represented by Dr David Edbrooke and research assistant Margaret Corcoran who presented the study. They showed that the number and type of admissions could largely explain the variation in expenditure on major resource components of an ICU.

The next presentation was from Louie Plenderleith, who detailed the theory behind SOPRA (System of Patient Related Activity) as an alternative to TISS (Therapuetic Intervention Scoring System). He outlined the problems with TISS mainly as having a large number of items, missing interventions, poor definitions and the omission of areas defining nursing workload. Eddie Crunden, Senior Nurse Manager Critical Care, Crawley and East Surrey Hospitals, offered a personal account of SOPRA. In practise he referred to it as a 'time based, intervention orientated system', which might better reflect nursing/medical workload and skill mix. He demonstrated its use within Ward Watcher and highlighted salient points to promote it as a credible alternative to TISS. Both presentations have generated much interest in Scottish ICUs. Dianne Currie, the SICS Audit Sister, gave an account of HDU provision in Scotland. This telephone survey was conducted in April 2000 at the request of the Scottish Executive and as part of the wider national audit of HDU/ICUs. She detailed the results, which were utilised in the publication of the 'Better Critical Care Report'. Following on, Dr Simon MacKenzie discussed the feasibility of encompassing HDU audit within the remit of the Society's national audit.

Mr. Graham Mitchell, Unit Head of the Information & Statistics Division of the CSA, then gave us a national perspective of the ICU Audit, recognising the high public and political profile it attracts. He commented on the financial requirements of the audit and the need for an exit strategy from CRAG funding. He listed the possible benefits that incorporation into ISD would bring: the formation of an experienced audit group within ISD workforce, the use of linked databases and analytical support. After exploring existing initiatives and current national audit projects, Graham summarised the current issues being reviewed by ISD and SICSAG including the incorporation of SICSAG within the National Audit Projects framework and the development of a mechanism to collect ICU subset into national SMR 01 forms. This project is currently seeking funding.

Finally Simon Mackenzie offered a SICS viewpoint on ISD linkage which stimulated much lively discussion from the floor, but which in general received a large measure of agreement.

I am indebted to our Audit Sister, Dianne Currie, for her summary of this meeting.

Recent publication from the audit group

Livingston BM, MacKirdy FN, Howie JC, Jones R, Norrie JD. Assessment of the performance of five intensive care scoring models within a large Scottish database. Critical Care Medicine 2000; 28:1820-1827.

Livingston BM, Mackenzie SJ, MacKirdy FN, Howie JC. Should the pre-sedation Glasgow Coma Scale value be used when calculating Acute Physiology and Chronic Health Evaluation scores for sedated patients? Critical Care Medicine 2000; 28:389-394

Noble JS, MacKirdy FN, Donaldson SI, Howie JC. Renal and respiratory failure in Scottish ICUs. Anaesthesia In press

MacKirdy FN, Hughes M, Ross J, Grant I. A prospective, observational study of ARDS in a cohort of patients in Scottish ICUs. American Journal of Respiratory and Critical Care Medicine 2000; 161(3):A382.

Woods AW, MacKirdy FN, Livingston BM, Norrie J, Howie JC. Evaluation of predicted and actual length of stay in 22 Scottish intensive care units using the APACHE III system. Anaesthesia 2000; 55:1058-1065.

HDU Audit

The Scottish Office report 'Better Critical Care' commended the Scottish Intensive Care Society's audit of intensive care and recommended that SICS, in conjunction with SASM (Scottish Audit of Surgical Mortality) should extend this to HDU. This idea was supported at both the Annual Audit meeting in October and the special meeting to consider the report in November. There are several reasons why it makes sense: firstly, there is a clear need for some sort of High Dependency audit, secondly both ICU and HDU are now regarded nationally as components of 'Critical Care', thirdly in many hospitals both units are run as a combined unit.

modification of the existing system. We are also seeking involvement from physicians. It is clear that there will need to be modifications to the dataset for use in HDU: consultation has begun on this but is not concluded. Fiona MacKirdy has written on behalf of the SICS Audit Group to those we could identify as being involved in audit and management of ICU and HDU in Scottish hospitals but it is quite possible that we have missed some people out. There is still time for those interested to offer suggestions or help. The dataset is the main issue, but there are others, particularly around participation and communication. There are varied administrative arrangements in different hospitals and, generally, many more consultants involved in HDU than ICU. To achieve the almost universal participation seen in the ICU audit will be a real challenge. However, it is hoped that the support given at the recent meetings will continue and help make national HDU audit a reality.

Simon Mackenzie

Better Critical Care and "winter pressure" meeting

The winter of 1999-2000 was very busy for intensivists, and the inadequacy of ICU bed provision was amply demonstrated (if any demonstrations were needed) by the fact that on January 9th 2000, the Shock Team transferred ten patients!

This meeting was chaired by Cameron Howie in the absence of Peter Wallace who was detained elsewhere, and we were addressed by a number of persuasive speakers who had clearly had a pretty hard time last winter. These included Fiona MacKirdy, Peter Stonebridge, Alistair Dorwood, Dermott McKeown and of course (both in his own right and deputising for Peter Wallace), Cameron himself.

Issues addressed were the inequality in the demand/provision of HDU & ICU beds, the absence (generally) of Level 1 (augmented ward) care, the control, speciality-mix and management of HDUs. The role of the electronic bed bureau was discussed, but it was stressed that transferring patients because of lack of beds should be very much a last resort; transfer is one, not the best, coping strategy. Overspill is another which was discussed at length - the need for space, beds, equipment and above all appropriately trained nursing staff was stressed.

The likely inability to recruit more critical care nursing staff was underlined by the number of critical care nursing vacancies already existing. The role of critical care "outreach" was discussed, and the educational value of a clinical nurse specialist in this role was compared to that of the acute pain nurse. The possibility of establishing acute medical receiving units was then discussed, and Alistair Dorwood won the sympathy of all of us by showing us some data about the stratospheric rise in the number of patients passing through a Consultant Physician's hands. One had to think "How can one possibly delivery quality when one has to deal with that quantity"?

Peter Stonebridge, uncharacteristically for a surgeon, advocated that all HDU beds should be run by anaesthetists/intensivists, but that there would be a big increase in Level 1 Care as this was cheaper and should prevent many patients needing HDU or ICU care. He emphasised the need for continuity of care and said that continuity now had to be Consultant based, as opposed to junior/middle grade based, but wondered how this was possible when most of the time he was away from the wards, either in theatres, out-patients or other hospitals, as were most surgeons.

Dermott McKeown advocated the ideal of "Seamless Care", Level 1 to 3 and back again, and described the evolution of augmented care in the Royal Infirmary, Edinburgh. He also produced one of the few lighter moments of the day when he referred to "Yuffties". (Those patients that you really don't want to take into ICU but (yufftie)!.The thorny question of nurse training to enable greater flexibility of role was adressed by Nigel Hobson and Liam Gaffney from Inverness. They seem to have managed it there: we must learn from their experience.

I felt that the main points coming out of the meeting were:

1. The inadequate numbers of critical care beds
2. The need for flexible use of Level 3 (ICU) and level 2 (HDU) beds and their geographical co-location.
3. The need to establish Level 1 beds.
4. The need to develop "coping strategies" for times of great pressure.
5. The possible development of acute medical admission units, (perhaps a side shoot of medical level 1 beds?)
6. The development of "critical care delivery groups" comprising perhaps consultants in ICU, surgery and medicine, nurses from ICU, HDU, Theatres, CCU and medical/surgical wards, physiotherapists and the trust business manager.
7. Continuing critical audit.

This was a very valuable, constructive meeting with input from anaesthetic, surgical, medical and nursing disciplines. It underlined the manner and spirit in which "winter pressure" is to be engaged if we are to survive the next one and the direction which Critical Care in Scotland will have to take.

The Scottish Intensive Care Society

The Society was formed in 1991 and now is not only a forum for anaesthetists with an interest in intensive care but also the organiser of a number of professional meetings a year. It forms the focus for audit of the specialty in Scotland, has created an intensive care bed bureau which enables us to see at a glance who has available beds where, and is becoming the lynch-pin of multi-centre intensive care research in the country. There are now over 220 members, and if approved by the 2001 AGM, a new category of Associate Members will be formed to include nursing and other allied professions. Members are represented by colleagues who are elected to the Council of the Society from all parts of the country.

The Council comprises:- the president who serves for 2 years; the immediate past president who gives way after one year to a vice president for one year; eight regional representatives who serve for two years and may be re-elected for a second term of office, following which they may not be re-elected for a further two years; and other non-voting members invited by the council for specific purposes. The treasurer and the secretary are elected by the council from amongst its members and serve for three years, but are replaced as regional representatives when their terms for the latter are complete.

The Council is currently comprised of:

President Dr P Wallace, Glasgow, Western Infirmary (2000)

Also:-

President elect, Glasgow & W of Scotland Society of Anaesthetists
Immediate past Hon Sec Association of Anaesthetists of Great Britain & Ireland.(AAGBI)
Chairman Education & Research Committee AAGBI
Member of Training Committee, Royal College of Anaesthetists (RCA)
Member Joint Committee on Good Practice AAGBI & RCA
Member of Professional Standards Committee RCA

Past President Dr JC Howie, Glasgow, Victoria Infirmary (1998)

Also:-

Audit Organiser, SICS
Representative for Anaesthetics and Intensive Care on SSMAC
Treasurer - Dr. David Noble, Aberdeen Royal Infirmary
Secretary - Dr Louie Plenderleith, Western Infirmary, Glasgow
Newsletter Editor - Dr William Easy, Vale of Leven DGH, Alexandria.
Email:- farmer.bill@freeuk.com

Regional Representatives

NORTH
Dr Ian Skipsey, Inverness, Raigmore Hospital. (1998)
Dr David Noble, Aberdeen, Royal Infirmary.(1999)
Dr Sally Crofts, Dundee,Ninewells Hospital. (1999)

EAST
Dr Simon Mackenzie, Edinburgh, Royal Infirmary (1999)
Dr Alasdair Mackenzie, Dunfermline, Queen Margaret Hospital (1997)

WEST
Dr Jim Dougall, Glasgow, Western Infirmary (1999)
Dr William Easy, Alexandria, Vale of Leven Hospital (1997)
Dr Louie Plenderleith, Glasgow, Western Infirmary (1998)

Forthcoming meetings

May I remind you of the forthcoming SICS meetings:

The Annual Scientific Meeting and AGM - now preceded by a good dinner at the end of January each year,

The Annual Audit Meeting, usually in October,

And also:

A one day conference on Septic Shock. Monday 19th February2001. Hosted by the Royal Medical Society at 1 Wimpole St., London.

The ICS (UK) Spring Scientific Meeting Organ Donation & Transplantation. 2nd Scottish Meeting, to be held in the Royal College of Physicians, Edinburgh on 2nd March 2001 (Cost £30, Tel 0131 536 3774/3946)

The ICS and Riverside Group Meeting, usually in London in December.

For those of you with lots of money: The European Society of Anaesthesia Meeting to be held in Gothenburg, Sweden on April 7th to 10th.

And, of course, regional meetings in the West and East of Scotland.