Scottish Intensive Care Society

Annual Report 2008
EDITORIAL

Welcome to this years annual report. Much of what you will read inside reflects the growing influence of your society on critical care matters in Scotland and gives a flavour of the hard work dedicated by the various individuals, group chairs and members. This evolution has necessitated a redrafting of the societies constitution which was ratified at the EGM in June 2008. The constitution is included for your information.

This year has also seen the full integration of the audit group within the Information Services Division of the Scottish Health Department. More information is included in the audit group report inside. Further developments in the last year include the launch of the Scottish Patient Safety Programme and we have a contribution from its clinical lead Jason Leitch with support from the coalface in the guise of Sanjiv Chohan.

The role of the Scottish Critical Care Delivery Group, made up of the chairs of health board critical care delivery groups, is eloquently summarised by the current chairperson, Dr John Colvin.

The first newsletter was introduced this year by Charlotte Gilhooly and members are encouraged to send any information they want shared with the entire membership to her at Charlotte.Gilhooly@ggc.scot.nhs.uk

Finally, the showpiece event for the society is the annual scientific meeting and it goes without saying that the 2008 meeting was another rousing success. Many thanks go out to those council members involved in the organisation of the meeting and the excellent scientific program. Due to the growth of the meeting January 2009 will see a change of venue with the Westerwood Hotel in Cumbernauld playing host on the 22nd and 23rd January 2009. The society will have exclusive use of the hotel facilities which should benefit accommodation needs and the smooth running of the 2009 meeting.
This is my first report as your President, and I would like to start by thanking members of Council for their support, and in particular Louie Plenderleith, my predecessor and Malcolm Booth our Secretary, for smoothing the transition.

I hope that you will read the reports from each of our individual groups. These will give you an idea of the breadth of the Society’s activities, and also their success. I will not duplicate what is set in those reports, but it is worth pointing out that the Education, Evidence Based Medicine and Trials Groups continues to provide models for other parts of the UK in addition to the contribution they make within Scotland. The audit group is now more secure financially and organisationally than at any time in its history, and I believe this fully vindicates the decision to move it to ISD. My thanks go to Graham Mitchell, Diana Beard, Brian Cook and Angela Kellacher in particular. The Society’s Annual Scientific meeting just continues to get better, and also bigger. In order to comfortably accommodate both delegates and trade, we are moving the 2009 meeting to the Westerwood Hotel in Cumbernauld, and I look forward to seeing you there.

There have, thankfully, been no great crises during my first months as President. Council is aware, however, of the issues around Medical Staffing, Transport of the Critically Ill and Organ Donation in particular.

Louie Plenderleith, John Colvin (on behalf of the Critical Care Delivery Groups) and I met the Chief Medical Officer, Dr Harry Burns, to ensure he was fully aware of our concerns. This is a level of access and recognition that we would not have been granted in past years, and reflects appreciation of both the Society and the Specialty.

As the Society matures, it has outgrown its Constitution and this has now been significantly revised. The aim is very much to make the Society more clearly open and democratic, and to encourage members to stand for Council. I hope that many of you will take advantage of this opportunity. I would like Council to be as representative of the differing backgrounds and views of those working in Scottish Intensive Care as possible. I hope that you find this report valuable and look forward to seeing you in January 2009.
Thursday

The Society’s Annual Scientific meeting was held once again in the fine surroundings of Dunblane Hydro. The sensible delegates stayed the night, the rest had to battle through projected snow storms and monsoon conditions.

An eclectic array of speakers from around the UK, Ireland & Israel ensured interest for everyone.

First up was Professor Sprung from Jerusalem. With the CORTICUS trial published in the New England Journal in the previous fortnight interest was high. The audience were not disappointed with an overview of the use of Corticosteroids in Septic Shock being presented followed by results from the study.

The next 2 speakers highlighted the limitations of much of the evidence we have in relation to glycaemic control and targeted O_2 delivery.

Duncan Young, revisiting the question of tight glycaemic control in the ICU highlighted the problems of transferring the present evidence available to the general ICU population and the high incidence of hypoglycaemia found in some studies. The NICE SUGAR study should produce some more broadly applicable answers in 2010. Next Rupert Pearse outlined what we do and do not know about targeted Oxygen delivery in the ICU. The use of anaerobic threshold testing, intropes, fluid and cardiac output monitoring were all discussed.

Prof Sprungs’ second lecture was most thought provoking and concerned end of life decision making. Much of the interest centred on the interpretation of Halacha (Hebrew “the path”) in the intensive care Unit which prohibits the cessation of continuous therapies. Also highlighted was the ETHICATT project, concerned with the Study of General Ethical Principles Involved in End of Life Decisions for Patients in European Intensive Care Units.

An excellent lunch was provided before the start of the afternoon session, chaired by Dr Louie Plenderleith.

This session began with the first of two presentations from Dr Liam Plant from Cork. Recent changes in the classification of Acute Renal Injury (ARI) were highlighted and the secret to surviving ARI uncovered – namely to survive ICU.

Acute Tubular Necrosis(ATN) was recognised as the commonest cause of Acute Renal Injury in the ICU and the use of Dopamine, Diuretics, ANP and Growth Factors were singled out as being “as welcome as a Dingo on a sheep farm” in the treatment of ATN!

Little were the audience to guess that perhaps the most controversial session of the meeting was to follow. Jason Leitch presented the aims of the newly formed Scottish Patient Safety Alliance, highlighting the fact that iatrogenic adverse patient events were far too common. The aims of the Alliance were highlighted, namely a reduction in hospital mortality by 15%, reductions in Adverse Events, MRSA bacteraemias & Crash calls (all by 30%) and the reduction in the incidence of central line infections and ventilator acquired pneumonias to zero or >300 days between incidences. Spirited discussion followed!

Next to speak was Jane Eddeleston, Critical Care Advisor to the Department of Health highlighting the deficiencies of care raised by the 2005 CEPOD & 2007 NPSA. There were still a worryingly high number of avoidable deaths due to simple causes but that the provision of courses such as AIM, ALERT, IMPACT and CRISP were going some way to address these issues. Key recommendations of the recently published NICE guidelines “Acutely Ill patients in Hospital” were also presented.

After the afternoon break Microbiology was the name of the game with informative lectures by Ian Laurenson and Stephanie Dancer on ways to prevent two high profile infections namely C.difficile and MRSA. The levels of reported C. difficile infection are becoming more of a concern especially with increased evidence that more pathogenic strains are emerging. Dr Dancer highlighted the problems of environmental contamination associated with MRSA acquisition and highlighted hand touch sites as being a particularly difficult area to deal with effectively.

The day closed with Hugh Dyson from Porton Down illustrating the potential problems of dealing with chemical weaponry. Few people will be able to look at a glass of water or a salt cellar in the same way following this talk which may at least partly explain the heavy reliance on bottled or draught beverages over the course of dinner and beyond!
Friday
Those of us not staying in the Hydro were now accustomed to the treacherous driving conditions required to reach the venue. Those staying were able to enjoy the 4 star facilities to the best of their abilities.

Friday opened with a session on safety and teamwork. Dr Tom Reader started with the results of a study on non-technical skills in the ICU. This dissected the nuances of inter-staff relations on the ICU ward round, highlighting the fact that ICU’s that lack rounds have 3 times the mortality of those that do. Graham Nimmo exposed the double-edged swords that are interruptions during intensive care.

Next were two presentations concerned with transplant services. Recent improvements including hormonal resuscitation, the use of dedicated teams and the early identification of potential beating heart donors were encouraging but work is still limited by the availability of donors and at present there was a requirement to extend the pool of potential donors to cope with an ever increasing demand. In the second session the way that different countries deal with this demand was compared and the increased use of cadaveric and living related transplants discussed.

The second session of the morning was the trainee research presentations. The standard was universally excellent with both trainees and medical students vying to win the prize for best presentation. No clear winner stood out but the victor - Caroline Hawe was well deserving for her presentation “Quality Improvement: reducing Ventilator Associated Pneumonia” - a thoroughly well presented study carried out at Stirling Royal Infirmary.

The pre-lunch slot saw a topical presentation by Duncan Young on nutrition. Starting back in the 1600’s with Sir Christopher Wren’s infusions of ale, wine and oil into dogs, nutrition has certainly come a long way in the ICU but much is still to be learned. Even in the Western world high rates of malnutrition exist in the patients admitted to ICU and infectious complications continue to complicate parenteral therapy.

Lunch followed with a final chance to view the excellent array of posters from institutions around the country and also peruse the stands at the trade exhibition.

Naz Lone Presented work from his Masters Thesis raising the usefulness of weaning units in Scotland citing an increased focus on rehabilitation and a concentration of expertise as reasons why quicker weaning can be achieved using dedicated stand alone units.

Douglas Watson from Glasgow presented results form the ISOC study on Coagulation in ICU. Important work owing to the fact that 30% of patients are coagulopathic and 20% of FFP used in the UK is given to ICU patients. The study is large with 11075 ICU days audited and aims to help answer questions such as which patients require FFP prophylaxis for which procedures.

Rupert Pearse’s final presentation centred on the fact that surgical mortality in the UK has remained static at ~20000/year. 5% of all patients fall into a “high risk” group with a third of these visiting ICU during their stay in hospital. Efforts should be made to improve outcomes in this demanding group of patients.

The final session of the meeting started with the presentation of prizes for poster and oral presentations. Then Miss Kate Everingham presented work on the epidemiology of MRSA pneumonia in Edinburgh Royal Infirmary making her the first winner of the SICS-Nursing/AHP award.

Last but not least Dr Liam Plant was as entertaining as he was informative, highlighting renal disease as a continuum and an important risk factor for mortality and morbidity in all affected patients.

Another hugely successful meeting for the Society and much thanks must go to the staff behind the scenes for organising such an informative and well attended meeting. Further thanks of course go to our distinguished speakers and to all the delegates, many of whom had travelled far & wide to make the event such a success.

Dr Colin Pow
Anaesthetic SpR West of Scotland
Following the recommendations of ‘Better Critical Care’ in 2000, each Scottish Health Board or operating unit (then Trusts) established a Critical Care Delivery Group to develop a more strategic approach to regional critical care planning and to contribute to operational management of all levels of critical care.

This development reflected an increasing recognition of the wider spectrum of critical care as a continuum and the need to manage all levels of critical care in a co-ordinated fashion.

Key remits for regional CCDG’s include definition of HDU and ICU capacity in individual Trusts, undertaking assessment of level 2 & 3 need, co-ordination of winter planning, establishing critical care service strategies and development of ‘outreach’ processes, escalation policies and other aspects of flexible working to most efficiently manage varying and unpredictable demand.

The Scottish Critical Care Delivery Group, an informal group of Regional CCDG Chairs, was set up in 2002 to provide a discussion forum and focal point for information sharing and pooling of expertise around these key remit areas. This Group also now includes senior medical representation from SEHD, Scottish Intensive Care Society and SICSAG. This has enhanced our ability as an ‘umbrella’ organisation and to relate to the Scottish Executive Health Department and CMO’s office in matters relating to critical care in Scotland.

Our Group continues to meet twice a year and in addition carries out further work by e-mail correspondence.

Whilst initial work involved much collecting and sharing information and expertise we have also developed a national co-ordinating role with respect to service aspects of Scottish Critical Care. Early work included collation of a ‘library’ of regional Critical Care Strategies and sharing information on many aspects of our slightly varying regional evolution.

More recently we have been co-ordinating concerns around interhospital transport of the critically ill, pandemic influenza escalation planning and propose to have input to critical care aspects of the Scottish Patient Safety Alliance. We are monitoring effects of acute service reorganisation on critical care and collecting information on inconsistent approaches to nurse staffing levels across the regions.

Specific areas with which we are currently involved include:

Delivering for Health -
Acute service reconfiguration. While much regional detail has still to be fully decided the general trend in recent planning suggests a direction towards regionalising provision of level 3 care with amalgamation/consolidation of smaller units to maximise perceived advantages of efficiency, economies of scale and concentration of expertise. Within individual hospitals, consideration is increasingly being given to more flexibility and co-ordination between level 2 and level 3 care again recognising these perceived advantages.

These trends are obviously intimately linked to other factors affecting medical and nursing workforce planning and we envisage this occupying us significantly in the immediate future.

Staffing Critical Care
Medical and nursing workforce considerations impinge into several other areas of critical care planning. Though our units have so far survived the transition to MMC in August 2007, future plans must accept that medical trainee numbers and experience are likely to reduce significantly in the next 5-10 years. We need to include consideration of role extension in nursing and new role development (Critical Care Practitioners) in our equation alongside the above aspects on ICU and HDU configuration.
Inter-hospital transport of the critically ill.

The CCDG’s share the frustrations of the critical care community generally around political and financial stalling of the Scottish Ambulance Service proposals for a dedicated interhospital transport service to improve response times and reduce pressure on the front line service.

We are surveying current and predictable future need for this service and have noted that significant increase in critical care demand on this service may result from acute service reorganisation. This work has been led by Dr Mike Fried.

There is now an approved transfer trolley and set of equipment certified and compatible for use in Scottish ambulances. It is increasingly likely that non-standard equipment will be refused by the ambulance service and health boards have been advised of this by the SAS.

Delivering for Health - the Scottish Patient Safety Alliance

Following a successful 3 year collaboration, ‘the Safer Patient Initiative’, between NHS Tayside, the Institute of Health Care Improvement and the Health Foundation this project has been adopted by the Executive as part of the Delivering for Health program. It has several strands including a critical care aspect which involves introduction of more structured communication and systematic implementation of evidence based care. Our Group have expressed interest in contributing to this initiative.

Pandemic influenza planning

The Scottish CCDG has led in the collection and collation of escalation plans for critical care particularly level 3 with some softer information on level 2 current capacity and proposals to escalate. While it is recognised that these are broad brush numbers they are useful to predict what extra capacity might be available and how this might be achieved by redirection of resource alteration of priorities as demand builds during the pandemic.

SICSAG

Our Group continues to actively support SICSAG and acknowledge the importance of its work in both ICU and HDU contexts. We are anxious that with transition to its new home in ISD that SICSAG retains the ethos and locally perceived ownership that has commanded the respect it enjoys both from within and outwith the specialty.

Provision of Medical HDU

We await with interest publication of the report from the SMASAC working group on adult HDU provision. It has long been apparent that medical HDU provision is the biggest unmet need in Scottish critical care; we look forward to Executive acknowledgement of this and proposals to address this gap.

QIS standards for Critical Care

We are disappointed that QIS have not yet committed to a timescale to develop standards for Intensive Care, though they acknowledge that this should be part of the total package of work around ‘Anaesthesia’ in the broadest sense. It may now be more relevant to develop generic standards for Critical Care recognising the recent and continuing evolution of our specialty.

To finish I would like to record my thanks to all members of the Group for their enthusiastic participation, particularly to Dr Catriona Barr, Shetland for her work as Secretary of our Group, to Dr Sandra Campbell, Senior Medical Advisor with SEHD for channelling our input centrally and to Dr Mike Fried who continues to represent us in all aspects around transport of the critically ill.

John R Colvin, Chair, Scottish Critical Care Delivery Group
TREASURER’S REPORT FOR 2007-2008

The Society’s accounts remain in a very healthy condition. The main source of income is from the Annual Scientific meeting for the general account and the education course for the education account. Both meetings have been very successful in the past few years.

The report from the accountancy firm tasked with reviewing the Society’s finance’s has resulted in us having to notify Her Majesty’s Revenue and Customs about our trading activity. This is because our income has been such, that a corporation tax return may have been required over the last few years. We are awaiting their response to this.

Once the accounts have been signed off, we will apply for Charitable status. Our chances of being successful have increased with some of the changes made in the new constitution.

There is a steady stream of new members. Please encourage your colleagues to join. Membership forms can be downloaded from the Society’s web page.

Steve Stott, Honorary Treasurer and Membership Secretary

SICSAG 2007-2008

The past year has been one of major change for SICSAG. Angela Kellacher as National Co-ordinator and Diana Beard as Project Manager leading the team of statisticians and local co-ordinators, have worked very hard to produce an annual report which “caught up” from 2005. This highlighted our increasing critical care workload with over 25,000 admissions in 2006 and a 32% increase in ICU admissions over the last 10 years. More HDU’s are continuing to join the audit.

The SICSAG steering group was strengthened by new members who have contributed to significant progress on a number of fronts. We produced evidence based care bundles to assist with the Scottish Patient Safety Programme, upgrades and improvements to WardWatcher for 2008 and, for the first time, we will produce the SICSAG annual report within the next calendar year of the activity being examined.

In November 2007, the clinical leadership of SICSAG changed: I was elected Chairman by the unit audit leads and Steve Cole, Vice-chairman by the Steering Group. This process revealed some weaknesses in the constitution of SICSAG and changes to this are planned to clarify the process for the future.

The annual audit meeting at the Beardmore in Clydebank in November 2007 had the Chief Medical Officer for Scotland, Dr Harry Burns as keynote speaker. For many, the Scottish Patient Safety Programme was introduced for the first time. The meeting was, as usual, well attended and received, but the venue was felt to be a challenge for transport. The 2008 meeting will return to Stirling on 10th October.

SICSAG must continue to inform the critical care community with comparative data which helps service planning, informs quality improvement and assures the Scottish public that an effective audit is examining the standards of care for the sickest patients in our hospitals. The 2008 annual report will have been published by the time this article is read. It is apparent that data quality is extremely important. Over the next year with further education, support and casenote data validation, the SICSAG team will strive to help you all make the most of this.

Finally, I would like to thank the long list of those involved in making this audit successful: the Scottish critical care community, staff at ISD and SICSAG, the SICSAG steering group and the previous chairman Simon Mackenzie.

Further information, contacts and the 2008 report are available at: www.sicsag.scot.nhs.uk

Brian Cook, Chairman SICSAG
SCOTTISH INTENSIVE CARE SOCIETY EDUCATION AND TRAINING GROUP ANNUAL REPORT 2007-2008

The group continues to expand its activities in response to the changing landscape of acute care in Scotland and the mandated changes in medical training in the UK.

This report provides an update on what we have achieved and our future plans.

1. The Education area of SICS Website and core teaching materials

Mo Al Haddad has continued to develop this and to populate it with useful educational materials. To date the group have authored and developed five on line tutorials, now published, with five more about to be completed. Our plan to provide a quality range of core ICM tutorials (see list below) is nearing its conclusion. These are freely accessible to all students and staff working in intensive care and the wider NHS.

Mo has also added a number of other useful areas to the website including material on clinical decision making and simulation applied to intensive care training.

2. Intensive Care training and simulation

The ESICM simulation group (SAINT) has continued work on intensive care simulation and has now completed the project. Our Education and Training Group has been heavily involved and the result is that we are now in the position to run monthly courses in the Scottish Clinical Simulation Centre for trainees attached to Intensive Care.

These PICT courses (Principles of Intensive Care: Training) utilise the SAINT learning modules and are run by members of the SICS Education and Training Group led by Graham Nimmo and Ben Shippey. A number of the group have already participated in faculty development.

3. ICM Trainees in Scotland

The annual SICS trainee education meeting took place at Stirling on the 21st and 22nd of August 2008. As in previous years applications to attend the course were slow to come in initially, with a flood of applications at the 11th hour, likely due to the proximity of the meeting to changeover date. The timing of the meeting should perhaps be reviewed for future meetings. In the end 48 delegates attended and the feedback seems to indicate enjoyed the various lectures, workshops and debate.

The Thursday morning began with two very interesting lectures on Burns and Trauma Management by Sam Moultrie and Euan Dickson both of which were accompanied with some appropriately gruesome slides to hold everyone’s attention. The Thursday workshops included oscillatory ventilation, hands on ultrasound, paediatric stabilisation, and a thought provoking video on non-technical skills. The first day was concluded with Martin Hughes and Paul Holder talking on assessment of Coma in the ICU and life as a flying intensivist in the outback.

The Friday began with a series of lectures including updates on asthma and pulmonary hypertension by Andy Smith and Kevin Blyth followed by lectures on weaning and APRV by Ross Paterson and Martyn Hawkins. The workshops on Friday incorporated a double session on percutaneous tracheostomy as well as decision making in ICU and neuroradiology. The meeting was concluded with a highly entertaining, animated, and at times heated debate by Lindsay Donaldson and Bryce Randalls on whether oxygen was good for you. Whilst Bryce fought his corner well (difficult when your opponent has put you in a NIV hood) managing to convert a few to his view that oxygen is bad for you, Lindsay, and her oxygen enriched face cream, won through in the end with the majority of people still in favour of oxygen.

The trainee’s committee would once again like to thank all those who spoke at the meeting and helped make it such a success.
4. Transport Training Initiative

A group of interested individuals met at the Society’s annual scientific meeting in January to discuss the need for a formal educational intervention aimed at improving the quality of secondary patient transport in Scotland. In addition to members of the Society, largely from the education group, the Scottish Ambulance Service, the SHOCK team and the Emergency Helicopter Medical services have been involved in the initial discussion and continue to be involved in the development process.

There was general agreement that there was potential benefit, and a (relatively informal) Delphi-type process was initiated to determine the objectives of such an intervention. The educational objectives were defined (based largely around the CoBaTrICE (Competency Based Training in Intensive Care in Europe) competences [www.cobatrice.org]), and a further meeting was held to discuss the best approach to delivering these objectives.

The “course” will be divided into four elements. Some educational objectives will be achieved by the provision of on-line modules, which will provide preparation for structured tutorials which will be delivered locally. We plan that the learning will be reinforced by the use of mid-fidelity simulation, again delivered locally, with the assistance of trainers with an interest in simulation, who will have assisted in other aspects of high-fidelity intensive care simulation training such as the PICT course.

We envisage that further experience in supervised transfer will enable the endorsement of competencies, and the evolution of competence into ability. Work is ongoing on the content of the “course” and we hope that it will be available in 2009.

5. SICS Education and Training Group away days

Over the last year the SICS Education and Training Group had identified a number of areas of interest and concern regarding the interface between training/education and the practice of clinical intensive care. The issues surrounding staffing the service, making it safe, and assessment of the evolving novel trainees were felt to be of such import that a series of workshops should be run in order to explore these topics with a view to identifying the core issues and providing potential solutions in each area. The most efficient way to achieve these objectives was to run these workshops together in a two day meeting held at the end of June. Dr Lia Fluit from Nijmegen was invited to provide specific teaching on workplace based training and assessment having been working extensively in this area for the Dutch health service. Dr Tom Reader from Aberdeen was invited to participate in the discussions around patient safety teaching in view of his experience of intensive care research and patient safety initiatives.

The programme was designed to allow maximum time for discussion and debate, with a clear ‘output’ expected from each session. The sessions on assessment were the least contentious. Mo Al Haddad introduced the group to the excellent documentation which has been produced in the West of Scotland and it was agreed that we should try and standardise this around Scotland (see http://www.scottishintensivecare.org.uk/sics/community/index.htm).

The session on teaching patient safety generated much discussion and it was agreed that alignment with the IBTICM curriculum was the way forward. The workshop on Advanced Critical Care Practitioners generated a huge amount of vigorous discussion. A number of different viewpoints were put forward and consensus about this has yet to be reached. Detailed summaries of all of the sessions will be placed on the website once ratified by Council.
SICS Education and Training Group Membership

Mo Al-Haddad  Glasgow (Webmaster)
Chris Cairns  Stirling
David Cameron  Edinburgh
Sally Crofts  Dundee
Charlotte Gilhooley  Glasgow
Martin Hughes  Glasgow (Secretary/Treasurer)
Marcia McDougall  Dunfermline
Carol McMillan  Dundee
Mike McMillan  Paisley
Sam Moultrie  Livingston
Graham Nimmo  Edinburgh (Chair)
Gordon Houston  Aberdeen (Trainee rep)
Ben Shippey  Dunfermline (Chair Transport Group)
Stephen Stott  Aberdeen
Elizabeth Wilson  Edinburgh

Induction and core learning materials

These on-line tutorials should be suitable for doctors coming through intensive care in their FY2, ACCS and early ST years. We hope that these resources are also useful to nursing, physiotherapy and pharmacy colleagues and to medical and nursing undergraduates. They allow learners to work through a tutorial and MCQs in order to have a face to face discussion about that subject with their educational supervisor or an appropriate clinician in their unit.

Live
- Initial assessment and management of the acutely ill patient
- Respiratory failure
- Ventilation
- Shock and vaso-active drugs
- Monitoring

Imminent
- Nutrition
- End of life care
- Fulminant hepatic failure
- Sedation
- Neurological Emergencies

Pending
- Acute renal failure
- Sepsis

Graham Nimmo,
Gordon Houston,
Ben Shippey

for the Education and Training Group, SICS
Once again the Spring meeting ran at Royal Hotel, Bridge of Allan on June 19th and 20th 2008. The meeting was attended, as usual, by about 40 delegates and discussion was lively and interactive. Our guest speakers were Kathy Rowan, from ICNARC, who spoke on future requirements for intensive care in the UK (a frightening prospect with the aging of the “baby boomer” generation) and the ICNARC research programme relating to outreach. The latter seems to illustrate the difficulty in showing important effects and the need to design future research carefully, preferably prior to the implementation of new services. Fatima M’Zali gave excellent talks on emerging antibiotic resistance and new antibiotics on the horizon or currently being introduced into clinical practice. Our other guest was Gavin Perkins, who reviewed current evidence for post-cardiac arrest care and new developments in CPR management. Other excellent sessions included the Scottish Patient Safety Initiative, with a focus on ventilator bundles, and an evidence based update of ARDS. As usual we had a selection of “CATs” and presentation of new and developing research ideas. This format seems to work well, although we may look at combining the meeting with the SICSAG audit meeting next year. We are grateful to Astra-Zeneca and Eli Lilly for sponsoring the meeting, enabling us to keep the registration fee excellent value for money.

Brian Cuthbertson and myself attended a UK forum for research, which is aimed at forging links for UK network-like research. The standing of the SCCTG is clearly high among the various parties and our model is being adopted as a UK-wide approach to collaboration. Organisations such as ICNARC, ICS, SCCTG and other regional research groups are being represented collaboratively and the stated aim is that this is not perceived as part of the ICS.

A UK meeting will be hosted in Edinburgh on November 10th and 11th 2008, which Brian Cuthbertson, ICNARC, and myself are organising. In future the aim will be for an annual meeting unrelated to the ICS or other major meeting will be held in different parts of the country. These are important developments, particularly as the UK Comprehensive Research Network (UKCRN), which will have strong influence on the future direction and funding of UK research, has just formed a Critical Care Specialty group. Tim Walsh will represent Scotland and Chair the group, so we should ensure our continuing high standing in the UK research community.

The SIGNET(selenium/glutamine in TPN) trial will complete recruitment at the end of this year and the PRaCTICaL (ICU follow up clinics) study has finished recruitment. The TRAPHHIC(acyclovir prophylaxis in ICU) study is ongoing in Glasgow. The ISOC (coagulopathy and FFP use study in ICU’s) is analysing data and a group has formed to develop a potential RCT. New studies in the pipeline include a transfusion trigger trial in longer term ICU patients (RELIEVE), an SDD study (SODUCCO) and a trial of a sedation monitor (IMPROVE). Other ICS trials that involve Scottish ICUs include TRACMan (recruitment ending December 2008) and OSCAR (oscillation versus conventional ventilation, recruitment started spring 2008)

Finally, congratulations to Professor Brian Cuthbertson on a personal Chair in Aberdeen......well deserved.

Tim Walsh, 2008
TRANSPORT ISSUES

I am pleased to report that the Scottish audit of inter-hospital transfers (IHT) of acutely ill adults has been completed. The audit was commissioned by the Scottish Government Health Department, sponsored by the Scottish Ambulance Service and executed by Jean Bruce, National Audit Co-ordinator and Chief Anaesthetic Research Nurse, St John’s Hospital, Livingston; Bob Colquhoun, retired SAS EMDC Controller; myself; the SICSAG team and many more folk, too numerous to mention by name, without whom the project would have been but a futile dream! The audit ran from November 12th, 2007 to March 30th, 2008; i.e. twenty weeks. Each front line ambulance in Scotland had a pad of audit forms supplied and re-supplied to them! The inclusion criteria were any adult patient being transferred between hospitals by an SAS A&E ambulance who required the monitoring of vital signs or who required an intervention from the accompanying ambulance personnel to correct any clinical deterioration or the patient’s pre-transfer condition required a clinical escort (nurse +/- doctor).

Of 3048 forms received 2396 forms were included in the audit. Of the 2396 included IHTs: 493 (20.5%) were emergency transfers; 1741 (72.7%) were urgent (1-4 hours) transfers and 162 (6.8%) were planned. The average duration of a patient journey was 57 mins (minimum 2 minutes and maximum 5 hrs 37 mins). 825 IHTs (34.4%) were clinically escorted: 69 consultants; 6 staff grades; 22 ST3 - ST5s; 64 ST1 - ST2s; 22 FY1 - FY2s; 415 registered nurses, 83 midwives, etc). The average escort return time was 2 hrs 35 mins. The majority of transfers were for specialist management +/- investigation. There were 911 in or out of critical care areas (CCU/HDU/ITU) of these 248 were ventilated, i.e. approximately 10% of audit. The shock team conveyed 192 IHTs (183 by land and 9 by air), the Emergency Medical Retrieval Service in Paisley transferred 13 all by air (some transferred by the RAF or Coast Guard were not included in the audit).

113 (20.2%) of the escorted IHTs used unsecured equipment! In total 84/2396 (3.5%) of IHTs required some sort of patient intervention. Adverse events (predominantly equipment failure; one accidental extubation) occurred in 22/570 (3.9%) of escorted IHTs - this included four ventilator failures. Equipment failure was significantly less common when using the critical transfer trolley (CCT6) 1.79% v 8.5%. During the audit period all SAS activity was scrutinised for IHT transfers of adults using front line ambulances (i.e. excluding patient transport service IHTs) - there were 17,877 such IHTs during the audit period. This projects to 46,480 adult IHTs per annum using A&E ambulances or 83,000 IHTs in total for 2007-2008.
In conclusion, there is significant IHT activity across Scotland conveyed by A&E ambulances. 10% of IHTs are ventilated patients. Clinical escorts are becoming more senior and are, on average 2hrs 35 mins away from their base hospitals. Reassuringly the incidence of adverse events is relatively low at 3.9%. The incidence of equipment failure may be decreased with the use of the critical care trolley.

### The top ten hospitals for IHT activity in Scotland during the audit period:

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Number</th>
<th>Av time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Infirmary &amp; Gartnavel Inf, Glasgow</td>
<td>1089</td>
<td>1:09</td>
</tr>
<tr>
<td>Royal Infirmary, Edinburgh</td>
<td>944</td>
<td>1:18</td>
</tr>
<tr>
<td>Victoria Infirmary, Kirkcaldy</td>
<td>796</td>
<td>1:03</td>
</tr>
<tr>
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<td>Royal Infirmary, Falkirk</td>
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</table>

Good news:
The CCT6 trolley is being purchased by most health boards in Scotland. The audit results are being presented to the three healthcare planning groups in Scotland and to the Chief Medical Officer. Hopefully this will provide a sufficient impetus for the creation of a formal IHT provision.

Not so good news:
The aerosled project has ground to a halt (I nearly wrote grounded!) due to organisational/financial issues in the SAS.

Mike Fried
SICS and RCA representative on the SAS IHT Board
SICS EBM GROUP REPORT 2007-2008

Although there have been few changes to the groups website over the last 12 months there has been a considerable amount of work going on behind the scenes. 11 CATs have been published in JICS and will appear on the EBM website at the next update. They are listed below for reference. Thanks again to those that have contributed. The relationship with JICS continues to flourish. It in encouraging that a significant proportion of the CATs originated from north of the boarder.

Other significant “works in progress” are reviews on SDD and METs both by Richard Price with support form Messer’s Cuthbertson and Cairns. They will be worth looking out for as they will amount to over 30 CATs between them.

Most of the lack of change in the website was due to a major server problem earlier this year. This led to a major reformatting exercise, which took a considerable amount of time, although the end product looks no different! The updates should get back on track now that this has been sorted.

The joint meeting of the research and EBM groups in June was a success once again. It was well attended by an ideal number of delegates which led to lively debate on a number of topics.

As for the next year: more updates. We will attempt to have smaller updates more frequently; a repeat of the EBM/Research meeting; and hopefully many submissions to the group for publication on the website and JICS.

Chris Cairns, Chair, EBM group.


SCOTTISH TRANSPLANT GROUP

There have been a number of interesting developments over the past year. The major development has been the long awaited publication in January 2008 by the Department of Health of *Organs for Transplant* a report from the Organ Donation Taskforce. This is a wide ranging report which seeks to bring about major changes in practice in the UK. The report lists a large number of recommendations which deal with the organisational, ethical, legal and professional issues that surround transplantation.

This report has been accepted and endorsed by the Scottish Government, the UK Joint Colleges and the BMA.

The Scottish Transplant Group is working closely with stakeholders to implement the recommendations of the report in Scotland, including a plan to re-establish the SORT team. A group has been established to look at the Task Force recommendations that are particularly relevant to the Critical Care Community.

A session on transplantation took place at the Annual Scientific meeting. It was well received and provoked lively debate.

The NON-Heart Beating program continues to develop in peripheral centres. The other major development over the past year was the ongoing debate about the rights and wrongs of introducing a system of Presumed Consent. The subject provokes strong views from both sides but as yet we seem no further forward in reaching a consensus.

* Organs for transplants: a report from the Organ Donation Taskforce can be downloaded at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082122

Stephen Cole
SICS Trainees Report 2007-2008

Committee
Currently Chairperson
Pauline O’Neil (East)
Secretary
Marian MacKinnon (West)
Education/training
Gordon Houston (North)
Audit coordinator
Alex Puxty (West)

Gordon Houston and Alex Puxty were elected to council by the SICS trainees in an online election in December 2007. Outgoing committee members were Andrew Cadamy, Alison Campbell and Pam Doherty. Thanks to them for their hard work during their time on the committee.

(Marian MacKinnon and Pauline O’Neil are to stand down. We are currently seeking nominations for election to the committee. There will then be online elections in November, so that the new committee will be in place by January 2009.

We also have a Paediatric trainee from Glasgow who is interested in becoming involved with the SICS trainees, and we wish to encourage this. He will be co-opted onto the committee when it is re-formed, as ratified at the AGM in August.

Education

The annual education meeting was held in Stirling in August 2007. It was a successful meeting, covering a wide range of topics and again the small group sessions made up a significant proportion of the meeting. Feedback from this year was that the delegates enjoyed the small group sessions. The meeting is open to all trainees and non-medical ICU staff, with a 50-50 split in delegates this year. The Education and Training group were heavily involved as speakers at the meeting and the sessions were educational and fun. Financially, the meeting broke even with registration fees and some industry sponsorship.

The timing of the meeting will be reviewed for next year, with November being suggested as an alternative. This is due to concerns about the slow uptake of places at the meeting due to job uncertainty and study leave restrictions. Again, thanks to the ICU community in Scotland for supporting the meeting both in teaching and in encouraging trainees and nurses to attend.

(Meeting also held in August 2008-report by Gordon Houston is in the Education and Training group report)

Audit

Referral and Review audit 2007: The results of this national audit led by Marian MacKinnon have been presented orally at the January SICS Annual Scientific meeting. This study found that Scotland seems to be out-performing the rest of the UK in ICU consultant involvement with admissions. However, referral at SHO level was commonplace, more than 1 in 4 patients were not assessed by ICU prior to admission, and referring consultants were aware of only 1 in 2 of all ICU referrals. Further data was presented as a poster at the International symposium on Intensive Care and Emergency Medicine in Brussels in March 2008. This data demonstrated that the majority of work done by ICU doctors is undertaken outwith the ICU. Further analysis of the audit data is ongoing.

(Activated Protein C audit: Alex Puxty is audit lead for the next national audit due to be conducted in early 2009. It will be concerned with rAPC use compared with the SICS guidelines. He is in the advanced stages of planning the audit, having written the data collection sheet, is close to recruiting all the regional co-ordinators and has written the protocol. He is liaising with the audit group regarding this audit.)

P O’Neil
WEST OF SCOTLAND
INTENSIVE CARE SOCIETY 2007-2008

The West of Scotland Intensive Care Society had another interesting and productive year. We started with Andy Longmate's fascinating and instructive account of his experience in trying to reduce catheter related blood stream infection. In April, Tim Walsh was kind enough to present 'Sedation: where are we and where are we going'. Not only was this an excellent summary of the rationale for sedation policies and use of sedation scoring, but may well be the prelude to a multi centre sedation study.

The registrars meeting generated a stimulating mix of audit and research. There were 5 presentations and all spoke very well with the first prize deservedly awarded to Alex Puxty for his extensive audit of the Use of recombinant Activated Protein C in Glasgow. Brian Digby received second prize for his work on BNP and CPAP.

With the thanks of the members of the Society, David Ure relinquished his position as President after 2 years of sterling service, and was replaced by Martin Hughes. We are also grateful to Rory MacKenzie, who surrendered his post as treasurer after 4 years (to Duncan Allen), and leaves the society's finances in sound health. Jim Ruddy joined the office bearers as Secretary.

Martin Hughes

SOUTH EAST SCOTLAND
ITU GROUP 2007-2008

We continued the previous years successful format of holding meetings centrally (the Royal Hospital for Sick Childrens' lecture theatre) hosted by the departments from around the region. This ensures nobody feels "left-out" or has to travel too far apparently.

Over the year to April 2008 we held 5 meetings covering topics such as the "Scottish Patient Safety Initiative", "Not another septic patient", "Mushroom ingestion as a cause of liver failure", "ARCP ventilation", "Foxtrot Oscar, it's Friday, 5pm and you want to see a cardiologist", "Non-heart beating organ donation" amongst others. Most of the departments had the opportunity to host a presentation including Stirling Royal Infirmary for the first time. The meetings were generally reasonably well attended with increasing numbers of trainees becoming involved.

A small number of our meetings are sponsored by "Industry" (by choice after some debate). The resulting funds are to be used to sponsor an overseas trainee to go to the annual scientific meeting in Dunblane. In 2009 this will be a trainee doctor from Karachi, Pakistan.

We are looking forward to more of the same next year.

David Semple
THE SCOTTISH PATIENT SAFETY PROGRAMME

NHS Scotland is the first health service in the world to adopt a systematic, nationwide approach to improving patient safety. The Scottish Patient Safety Alliance (SPSA) brings together NHS Scotland, The Scottish Government, the Institute for Healthcare Improvement (IHI) from the USA, NHS Quality Improvement Scotland (NHS QIS), professional bodies and patient representatives in a coalition designed to significantly reduce adverse events and to improve patient safety. The Scottish Patient Safety Programme (SPSP) is the first major work stream of the SPSA. Its key objective is to dramatically improve the safety of hospital care right across the country. This is achieved by using evidence-based tools and techniques in defined areas of clinical practice aimed at improving the reliability and safety of everyday healthcare systems and processes. Real time data is gathered unit by unit, and the frontline staff caring directly for patients lead the work that is required to achieve the aims of the programme. Since January 2008, all acute hospitals across the country have been taking part in the SPSP. Intensive care units are working on a number of initiatives within the programme. Early result suggest they are leading the way in changes to process measures and initial change in some outcome measures.

The development of the SPSA links NHS Scotland to the range of organisations which seek to secure and enhance the safety and quality of services provided to patients in NHS Scotland including professional bodies like the Scottish Intensive Care Society. Links with SICS have been crucial in development and implementation of the changes necessary in frontline care.

While acute care is the starting point, the overall approach reflects the totality of the patient journey and recognises that care will take place in a range of settings, with primary and community based-care becoming increasingly prominent in terms of the delivery of complex packages of care. The SPSA have plans to broaden the approach over the next few years to include paediatric hospitals, community hospitals, mental health and primary care.

The high level aims of the programme are that firstly, there will be evidence of a 15% reduction in mortality by January 2011 and secondly, a 30% reduction in adverse events. The level of achievement for a range of supporting aims such as ventilator-acquired pneumonia and ‘crash’ call rates have also been quantified. Work continues with NHS Scotland, professional bodies and specialty societies to ensure the aims and implementation arrangements fully reconcile with NHS Scotland organisational arrangements.

The most successful organisations that IHI have worked with, both through the work of the 100,000 Lives Campaign and other IHI initiatives, have achieved over 24 months without a ventilator acquired pneumonia (VAP). Like VAP, it is also possible to nearly eliminate catheter related bloodstream infections (CRBSI). The 100,000 Lives Campaign in the United States resulted in more than 37 hospitals achieving over 300 days between CRBSI’s.

The Scottish Patient Safety Programme is an ambitious nationwide quality improvement project with a clear focus on frontline care and patient’s best interests. It will need organisations such as SICS with its progressive, highly motivated and forward thinking staff to lead the changes in this vital initiative.

Jason Leitch, National Clinical Lead for Safety and Improvement, Scottish Government
3 years prior to 2008, we, like many other units, had introduced VAP and line bundles. Our perception was that over time, knowledge and implementation of these remained patchy, and this was confirmed by a number of audit cycles. Despite education, feedback and other approaches, change in practice was slow and laborious. It was easy to be distracted by other issues before the job was completed. We did not inspire great enthusiasm in bedside staff, who often remained doubtful of any purported benefits of changes in practice.

The SPSP therefore was seen by many as a way of furthering our own goals, although some worried that this was an imposed additional burden. These fears were quickly allayed, when it became clear that the direction and detail of the process was determined by us, albeit within certain pre-defined areas initially. We reviewed our protocols, and agreed on reasonable versions, focusing on what we thought was truly important, dropping the merely desirable and possibly therefore unachievable. The development of audit tools for the work streams overcame any lingering doubts, as it quickly became apparent that the measurement process was much easier than our previous audits. It did a great job of publicising the program to our own bedside staff, on whom we relied to report compliance. They were regularly asked their views on the audit tools and so were involved far more than in any earlier change program. A number of staff were consequently recruited in to the process. Measurement of compliance itself also educated our staff on our protocols and standards more efficiently than we had previously managed. There was no audit ‘fatigue’, as often happened previously, with too few cycles, too little reinforcement, and a loss of drive before goals were attained. Already we seemed to have achieved something.

Once we had begun to measure compliance in some of the work streams, we had to address our protocols. Of course we were not achieving the compliance rates we had hoped for. This was the first home truth we had to face. Next the realisation that our extensively researched, evidence based, articulate and intelligently written protocols didn’t work in practice! It will be a while yet before we have them all working perfectly. However along the way we are learning a few important lessons the most important of which is to ask the opinion of those at the ‘coalface’. An ITU nurse can manage someone’s blood glucose perfectly well, and will be hampered by an unrealistic protocol. The result- poor glycaemic control, and frustrated staff. We are now going through a process of ‘protocol evolution’, as the most effective elements are selected out by those that use them. Those managing the unit are really only setting goals. Such consultation with staff was previously, at best, an aspiration.

So we are getting to know our unit. We are getting to know a lot about our unit that we didn’t know before; how people think, how they actually practice, and now, the results of measurements we previously didn’t collect. Thanks to a welcome addition of staff and equipment, we are starting to measure our infection rates, alongside outcome measures we already had access to. In a complex, information rich speciality, I wonder why we didn’t have this information before. Coupled with measures of our compliance with protocols and bundles, the effect on all staff has been powerful. Maybe this is the accountancy of ITU, but like double entry book keeping, I can see that this wealth of information will alter critical care in a way comparable to the business world. Perhaps there is a worry over the quality of the information we collect, but, rather than stop collecting it, I want better information on our unit, as I’m sure every clinician does. I wonder what else I should know. The information we are now collecting is far from a full picture of our intensive care unit. I can also see this driving translational research that we sorely need. Every time I read an RCT, I have to ask, how do I make this happen, how do we really deliver good evidence based critical care? Scotland and the SICS seem well placed to take on this challenge.

Dr Sanjiv Chohan, Lead Clinician Monklands ICU
**CURRENT OFFICE BEARERS**

President: Simon Mackenzie, East

Past President: Louie Plenderleith, Wes

Secretary: Malcolm Booth, West

Treasurer: Steve Stott, North

**EX OFFICIO COUNCIL MEMBERS**

Transplant group: Steve Cole, NW

EBM group: Chris Cairns, SRI

SICS audit group chair: Brian Cooke, RIE

Scottish critical care trials group: Tim Walsh, RIE

**OTHER ROLES:**

Chairman of Research Group: Tim Walsh, RIE

EBM Group: Chris Cairns, SRI

Education group chair: Graham Nimmo, WGH

Annual report Editor: Rory Mackenzie, Mon

Transport of the Critically ill: Mike Fried, St JH

Meetings Convenor: Tim Walsh, RIE

CSCCDG Chairs: John Colvin, NW

**REGIONAL REPRESENTATIVES**

**West:**

Dr Charlotte Gilholly, GRI

Dr Malcolm Booth, GRI

Dr Rory Mackenzie, Monklands

**East:**

Dr Graham Nimmo, WGH

Dr Bob Savage, QMH

**North**

Dr Roxanna Bloomfield, ARI

Dr John Colvin, NW

Dr Sandy Hunter, Raigmore

**TRAINEE REP**

Dr Pauline O’Neil, Dundee
1. The Society will be called the Scottish Intensive Care Society.

2. The Purpose of the Society will be to promote knowledge and practice pertaining to Intensive Care Medicine in Scotland, and to provide a forum for the dissemination of information and the representation of its members.

3. The Society will organise an annual scientific meeting.

4. The Society will be administered by a council. This will consist of medically qualified full members and one member representing Doctors in Training and one member representing Associate Members. The officers are the President, President-elect or immediate past-President, Secretary and Treasurer. The President will chair meetings of Council. In the absence of the President, the President-elect or immediate past-president will chair the meeting. If that person is also absent, the meeting will elect a chair. Six voting members, including one officer must be present for the meeting to be quorate. The Council may create sub-groups. The minutes of Council meetings will be available to members of the Scottish Intensive Care Society.

5. The Council will be elected from a regional constituency. Members will vote according to the location of the hospital in which they spend most of their professional time. The constituencies will be:
   a) NORTH: Highlands, Grampian, and Tayside (3 representatives).
   b) EAST: Lothian, Borders and Fife (3 representatives).
   c) WEST: Dumfries & Galloway, Ayrshire & Arran, Lanarkshire, and Forth Valley (3 representatives).
   d) GREATER GLASGOW and CLYDE (3 representatives).

6. a) The Council will elect a Treasurer and a Secretary from amongst its full members. The Treasurer will also act as the Membership Secretary.
   b) The Treasurer and Secretary will continue to act as regional representatives until his/her term of office as regional representative is complete. Thereafter a replacement regional representative will be elected.
   c) The Treasurer and Secretary will each serve for a period of three years. The Treasurer or Secretary can complete their term of office if their term as regional representative is completed during their period of office.

7. a) The President, who must be a full member of the Society, will be elected one year in advance of taking office, and during that year will hold the office of President-elect. The President will be elected by voting members of the Council. The President will serve for a period two years, commencing at an Annual General Meeting (AGM). At the end of that term, the President will not be eligible for re-election, but will serve as immediate past-president for one year. The President will not be counted as a regional representative.
   b) The President will have the casting vote at meetings of Council and at Annual and Extra-ordinary meetings of the Society.
   c) Where the President demits office prematurely, the Council will elect one of its members to undertake the President’s duties until the next AGM. If there is not a President Elect, the Council will arrange for an election to be held prior to the next AGM.

8. a) The President Elect will serve as a voting member of the Council for a period of one year between his/her election and taking up post as President. The President Elect will continue as a regional representative during that year.

9. a) The Immediate Past President will serve as a voting member of the Council for a period of one year following his/her term of office as President.
   b) The immediate Past President will not count as a regional representative.

10. a) Vacancies for regional representatives will be notified to the membership at least 10 weeks prior to the AGM and nominations for these posts sought. Written nominations to the Secretary will be accepted up to eight weeks prior to the AGM. Nominations must be proposed and seconded by full members of the Society and acknowledge the candidate’s agreement to stand in the form of the candidate’s signature.
    b) Members may enquire of the Secretary, and be informed whether any such proposals have been received.
    c) Where the Secretary has received two or more written nominations for the post of regional representative a confidential ballot of full members will be held before the AGM for the post(s) for which the Secretary has received two or more nominations. This ballot may be conducted as the Council directs, including electronically. The result of such a ballot will be announced at the AGM.

11. The Council may invite a member of the Council of the Intensive Care Society of the UK working in Scotland to serve as a nonvoting member of the Council of the Scottish Intensive Care Society.

12. The Council may invite any member of the Scottish Intensive Care Society to serve as a non voting member of the Council.
13. All Council members, not holding other Society office, will serve for a period of two years. They may be re-elected for a second term of office following which they may not be re-elected for a further two years.

14. a) The following categories of membership will exist:
   i. Full membership: open to any Registered Medical Practitioner not in a training post.
   ii. Trainee membership: open to any Registered Medical Practitioner in a training post.
   iii. Associate membership: open to all healthcare professional with an interest in Critical Care. Other interested persons may be accepted for Associate Membership.
   iv. Honorary membership is open to anyone who has served the Society and/or Scottish Intensive Care in general in a praiseworthy fashion.

   b) All applications for membership will be subject to approval by the Council in accordance with Council’s Standard Operating Procedures.

   c) A list of members will be maintained by the Membership Secretary.

15. Notice of the Annual General Meeting will be given 6 weeks and any Extraordinary General Meeting (EGM) will be given 6 weeks to all members before the intended meeting.

16. An annual subscription may be levied as determined by the members at the AGM. Failure to pay the subscription within three months of the due date may result in termination of membership.

17. An extraordinary General Meeting may be called if 10 or more full members make a written request to the Secretary, or at the request of the President.

18. a) The Constitution may only be amended at an AGM or EGM.

   b) Any proposal to amend the Constitution must be intimated to all members 4 weeks before the proposed meeting.

   c) Such a proposal may be made by Council, or by not less than 8 full members.

   d) A motion to change the Constitution will be carried at an AGM or EGM if more than 66% of the membership present vote in favour.

   e) Other motions will be carried when more than 50% of the members present vote in favour.

   f) A quorum of the AGM and any EGM will be 20 full members. The AGM and EGM will be chaired by the President will chair meetings of Council. In the absence of the President, the President-elect or immediate past-president will chair the meeting. If that person is also absent, the meeting will elect a chair.

   g) The President will have the casting vote.

19. All monies raised by the Society will be used to pursue the objectives of the Society. That is to promote knowledge and practice pertaining to Intensive Care Medicine in Scotland, and to provide a forum for the dissemination of information and the representation of its members.

20. If the Society should cease to exist, any remaining funds will be passed to the Intensive Care Society of the UK.

Signatories

President: ___________________________________________ Date: __/__/____
Honorary Secretary: ________________________________ Date: __/__/____
Honorary Treasurer: ________________________________ Date: __/__/____