Acta Anaesthesiol Scand 2010; **54**: 1062–1070
Printed in Singapore. All rights reserved

ACTA ANAESTHESIOLOGICA SCANDINAVICA
doi: 10.1111/j.1399-6576.2010.02276.x

Review Article

Shaping the future of Scandinavian anaesthesiology: a position paper by the SSAI

E. Søreide[1], S. Kalman[2], A. Åneman[3], O. Nørregaard[4], P. Pere[5], J. Mellin-Olsen[6] on behalf of the Position Paper Task Force*

[1]*Department of Anaesthesiology and Intensive Care, Stavanger University Hospital, Stavanger, Norway,* [2]*Department of Anaesthesia and Intensive Care Medicine, Karolinska University Hospital Huddinge, Stockholm, Sweden,* [3]*Department of Anaesthesiology and Intensive Care, Sahlgrenska University Hospital, Göteborg, Sweden,* [4]*Department of Anaesthesiology and Intensive Care Medicine, Århus University Hospital, Århus, Denmark,* [5]*Department of Anaesthesia and Intensive Care Medicine, Helsinki University Hospital, Helsinki, Finland and* [6]*Department of Anaesthesiology and Intensive Care Medicine, Asker and Bærum Hospital, Oslo, Norway*

Traditionally, Scandinavian anaesthesiologists have had a very broad scope of practice, involving intensive care, pain and emergency medicine. European changes in the different medical fields and the constant reorganising of health care may alter this. Therefore, the Board of the Scandinavian Society of Anaesthesiology and Intensive Care Medicine (SSAI) decided to produce a Position Paper on the future of the speciality in Scandinavia. The training in the various Scandinavian countries is very similar and provides a stable foundation for the speciality. The Scandinavian practice in anaesthesia and intensive care is based on a team model where the anaesthesiologists work together with highly educated nurses and should remain like this. However, SSAI thinks that the role of the anaesthesiologists as perioperative physicians is not fully developed. There is an obvious need and desire for further training of specialists. The SSAI advanced educational programmes for specialists should be expanded and include formal assessment leading to a particular medical competency as defined by the European Union of Medical Specialists (UEMS). In this way, Scandinavian anaesthesiologists will remain leaders in perioperative, intensive care, pain and critical emergency medicine.

Accepted for publication 18 June 2010

Background

The European Union of Medical Specialists (UEMS)† is currently discussing the organisation of several medical fields, including intensive care and emergency medicine. The healthcare systems in the Scandinavian countries are undergoing organisational changes and are being challenged by resource restraints. New developments in medical treatment and the delivery of clinical care make old solutions and organisations redundant. All these factors may affect the many roles of the Scandinavian anaesthesiologist in the future. The SSAI aims to continue to play an active role in the development of the medical speciality anaesthesiology. Therefore, the Board of the Scandinavian Society of Anaesthesiology and Intensive Care Medicine (SSAI) decided to produce a Position Paper on the future of the speciality in Scandinavia (Appendix 1) including educational and organisational aspects, as well as clinical practice and research issues.

The SSAI

The first Scandinavian society of anaesthesiology [Nordisk Anaestesiologisk Förening (NAF)] was founded in 1949 as a society for individual anaesthesiologists in the Scandinavian countries (Denmark, Finland, Iceland, Norway and Sweden). In 1997, the General Assembly of NAF agreed that modernisation was needed regarding the aims, goals and visions, with a special emphasis on education, quality issues and research.[1] In 1999, the General Assembly approved the new bylaws and proposed organisational changes. Further, it was decided to

**The Position Paper was approved by the Board of SSAI in May 2010. The members of the Task Force and the work process are outlined in Appendix 1.*
†http://www.uems.net (accessed 19 March 2010).

name the restructured organisation the SSAI. The decision to use SSAI as the new name emphasised that anaesthesiologists had pioneered[2] and should remain ahead in intensive care medicine.[3,4]

Today SSAI is an umbrella organisation[5] for all the national societies of the medical speciality anaesthesiology as defined by UEMS.[6] The SSAI bylaws state that the society aims 'to safeguard the professional interests of the medical speciality anaesthesiology and intensive care medicine and its practitioners in the Scandinavian countries'‡. The bylaws also state that SSAI aims 'to be a forum for scientific discussions and co-operation and for the exchange of ideas in the fields of anaesthesia, intensive care medicine, pain therapy, emergency medicine and pre-hospital care'. Hence, Scandinavian anaesthesiology as a medical speciality rests on four pillars: anaesthesia, intensive care, pain and emergency medicine. In addition, a number of much specialised functions are included, e.g. home respiratory care. The four pillars reflect the organisational history and development of health care in the Scandinavian countries. Scandinavian anaesthesiologists have been the frontiersmen and women in intensive care, pain and emergency medicine. The involvement in emergency medicine has in particular been linked to immediate life support and resuscitation of critically ill and injured patients, whether in the pre-hospital setting or inside the hospital. Anaesthesiologists have also operated as medical directors of pre-hospital ambulance services.

The SSAI has promoted and developed the speciality through biennial scientific congresses that have rotated between the five countries. Furthermore, the SSAI Educational Committee (EC) has initiated and supported Scandinavian post-specialist education through advanced educational programmes. These programmes now include intensive care medicine,[3] paediatric anaesthesiology, advanced pain management, obstetric anaesthesia and critical emergency medicine§. The SSAI has also supported courses on difficult airway management and trauma team training. The SSAI Clinical Practice Committee (CPC) has facilitated the development of new Scandinavian Clinical Practice Guidelines (e.g. for Pre-operative Fasting, Anaphylaxis Treatment and Diagnostics, Pre-hospital Airway Management, Therapeutic Hypothermia and Regional Anaesthesia and Anticoagulation).[7–11] The next focus area for the CPC is joint quality standards. The SSAI Research Committee (RC) has supported collaboration in Scandinavian research. The internationally highly ranked journal *Acta Anaesthesiologica Scandinavica*¶ has been and remains a cornerstone in all the work of SSAI, both with regard to scientific publication and financial revenue.

In this document, the following updated terms have been chosen to define the four pillars of the speciality:

- Anaesthesia and perioperative medicine
- Intensive care medicine
- Pain medicine
- Critical emergency medicine (CREM)

Current status of the medical speciality anaesthesiology in the Scandinavian countries

Specialist training

The Scandinavian specialist training curricula are very similar based on information from the national societies and include detailed descriptions of the goals and number of clinical procedures that must be documented (Table 1). Competency-based training is also applied with regard to communication and organisational skills, professionalism and academic performance. A method of performance approval is described for each competence. Specialist training in a pre-hospital position is optional, while advanced life support training is mandatory. Both acute pain management and care of malignant pain are a part of the curricula in all Scandinavian countries. Formal fellowship programmes to reach a sub-speciality level are uncommon. During the last 10 years, the SSAI has organised advanced educational programmes in intensive care and pain medicine, both extending 2 years. In this document, the term Particular Medical Competence (PMC) (Fig. 1) will be used to describe the need and demand for further specialisation in accordance with UEMS terminology. Alternative ways to achieve further professional standards include sub-specialisation (Fig. 2) and supra-specialisation (Fig. 3) (see also the accompanying survey[12]).

‡*http://www.ssai.info/SSAI2/articles.html (19 accessed March 2010).*
§*http://www.ssai.info/Committees/educational.html (accessed 19 March 2010).*
¶*http://www.wiley.com/bw/journal.asp?ref=0001-5172 (accessed 19 March 2010).*

Table 1

Specialist training in anaesthesiology and intensive care medicine in the five Scandinavian countries.

	Specialist training (years)	Anaesthesia, minimum requirement in years	Intensive Care Medicine (years)	Specialised anaesthesia (i.e. neuro, paediatric, thorax) (years)	Surgery and or internal medicine or similar (years)	Trauma and resuscitation training	Competence and goal based	University/ non-university hospital (%)	Clinical experience could be exchanged for research years
Denmark	5	3	1	0.5	0.5	Yes	Yes	50/50	
Finland	5	3	0.5–1	0–1	1	Yes	Yes	50/50	0.5
Iceland	5	All specialist training >2 years conducted abroad							
Norway	5	3.5	0.5	0.5	0.5	Yes	Yes	30/70	0.5
Sweden	5	3	1	0.5	0.5	Yes	Yes	20/80	A PhD counts for 0.5

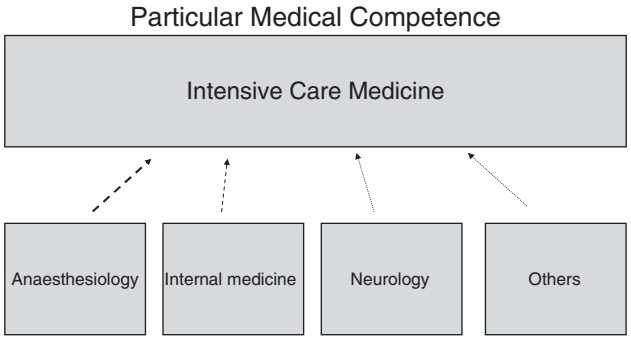

Fig. 1. Intensive care medicine explained as a Particular Medical Competence for anaesthesiologists according to the European Union of Medical Specialists definition.

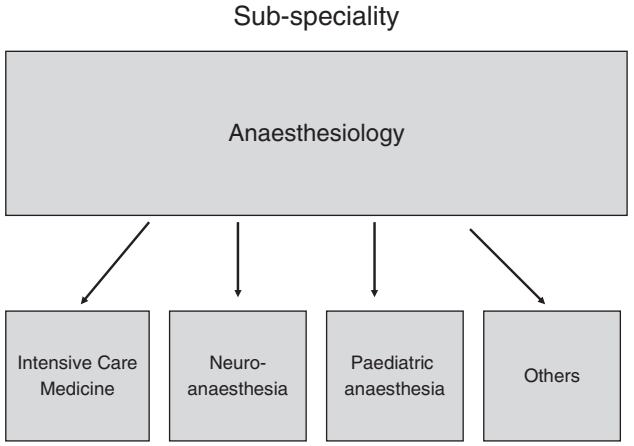

Fig. 2. Intensive care medicine explained as a sub-speciality of anaesthesiology.

Organisation and clinical practice

The hospital anaesthesiology services are most commonly organised under one umbrella (Department or Division), although different models exist depending on the hospital size, traditions and country. In university hospitals, individual anaesthesiologists tend to work in a more specialised role, for example as full-time intensivist or thoracic anaesthesiologists. In the non-university hospitals, the anaesthesiologists play a more general role. Furthermore, the needs for specialisation during office hours versus general competence when on call have been solved in different ways. No universal design exists and at present various solutions evolve as different hospitals try new models.

The Scandinavian anaesthesiologist has the medical responsibility for the anaesthesia and intensive care teams. These teams typically include one or more anaesthesia/intensive care nurses who are specialised beyond their bachelor education by 1–2 years of further training.

Research

The scientific production is overall growing, albeit with large national variations.[13] Research is an expanding activity also outside the traditional framework of university hospitals. Research involvement ranges from trainees conducting minor projects to young specialists completing an academic degree (former Dr.Med Sci, now PhD) and senior specialists fulfilling supervisory roles. Usually, only very limited resources are allocated for research on the departmental level. The funding differs between Scandinavian countries in terms of the main sources for the individual researcher (regional and national funds, companies, non-profit foundations, etc). Research activities accounted for 6% of the working time in the member survey,[12] with an expected increase in the next few years.

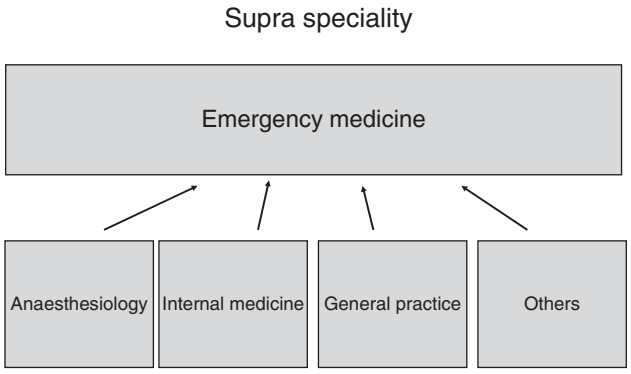

Fig. 3. Emergency medicine explained as a supra-speciality, also for anaesthesiologists.

Future challenges for Scandinavian anaesthesiology

Workforce, training and evaluation of competence

The Scandinavian workforce of anaesthesiologists currently comprises approximately 3800 active specialists (Denmark 800, Finland 700, Iceland 50, Norway 740, Sweden 1500) and 1270 trainees (Denmark 360, Finland 250, Iceland 5, Norway 300, Sweden 350). A shortage of specialists is anticipated in all the Scandinavian countries based on increases in work force demands and retirement rates. The number of specialised nurses in anaesthesia and intensive care are, in addition, not expected to match the requirements.

While the present rates of recruitment to specialist training in anaesthesiology are satisfactory in the Scandinavian countries, an expansion of the total workforce is pivotal to secure future professional standards and workplace conditions. An increased immigration of specialist colleagues trained outside Scandinavia is expected. A fair, transparent, consistent and systematic assessment of how qualifications in anaesthesiology are acquired and maintained is absolutely necessary. Adherence to consensus agreements on medical professional standards within the European Union will also direct the integration of anaesthesiologists with training and experience extramural to Scandinavia.

It is anticipated that formal assessments of professional competence will be further developed, including written, oral and practical examinations like the European Diploma in Anaesthesiology and Intensive Care (EDA)[14] and the European Diploma in Intensive Care Medicine (EDIC).[15] The curricula in Scandinavia for training in anaesthesiology are continuously evolving to optimise educational outcomes. In general, a structured syllabus focusing on acquiring and demonstrating core competencies has been adopted, giving less priority to set timeframes. Strategies for Continuous Professional Development (CPD)[16] are also being developed throughout Scandinavia, as prompted and encouraged by the national medical societies.

Organisation of anaesthesiology services, quality of care and patient safety

More than 50% of all patients admitted to hospital will at some stage undergo invasive procedures involving anaesthesiology services. A growing number of patients with multiple co-morbidities surviving advanced medical interventions and an expanding elderly population will demand significant human and financial resources. The anaesthesia team plays a decisive role to ensure optimal use of allocated resources, working together with relevant partners in surgery, cardiology, radiology and endoscopy, among others. The anaesthesiology department must maintain and further develop its status as a competent leader in organising perioperative logistics, both in terms of local infrastructure as well as overall hospital planning. Being in the lead, the anaesthesiologist will ensure quality of care, effective prioritisation and cost containment, a positive working environment and, most importantly, improved patient safety. The overall aim must be to minimise the perioperative trauma to an increasingly vulnerable patient population. The focus should be on an integrated multi-professional and multidisciplinary approach to patients in the perioperative period. Pre-operative assessment and optimisation of the ageing patient population with increasingly complex co-morbidities is a challenge. The trend towards further subspecialisation of all surgical disciplines may be necessary but will make the anaesthesiologist's involvement in the general medical management in the perioperative period even more important.

The anaesthesiology services have developed from perioperative anaesthesia care only, to include large medical fields such as intensive care, pain and critical emergency medicine. It is important to recognise that this development has broadened the scope of practice for Scandinavian anaesthesiologists, increased the responsibilities and posed challenges on the organisation of the services. Within this practice framework, a majority of SSAI members supported a process for further sub-specialisation. This could apply to intensive care medicine,

but also thoracic and neuro-anaesthesiology. At least 60%[12] of participants supported establishing subspecialities, i.e. primary speciality training as recognised today, followed by further specialist training, in all four areas of practice, in particular for intensive care medicine (74%). It will be a major challenge in the years to come to balance these needs and wishes against the real world of manpower and staffing restrictions, as well as the needs for on-call competence. The continuous process towards more specialised practice will evolve. All the national societies reported it as a foremost priority to make sure that all fields of anaesthesiology practice are brought together in one organisational body. Furthermore, an overwhelming majority of participants in the survey objected to being employed outside the anaesthesiology organisation, for instance by a surgical department or division.

Clinical practice guidelines

The field of anaesthesiology is growing rapidly and it is becoming increasingly difficult for the individual professional to keep up to date in all areas of the speciality. Evidence-based and clinically oriented guidelines can ensure less variation in care and advance best clinical practice. Scandinavian consensus and a standardised format for guidelines should be obtained whenever possible to increase their credibility and compliance and to ultimately decrease the workload of writing similar national documents. This is exemplified by the growing number of widely accepted guidelines published by working parties within the SSAI.[7–11]

Clinical governance

The collection of clinical practice and outcome data in an accurate, timely and effective manner is of major importance because it is a prerequisite for the construction of valid clinical databases. Information from such databases will be essential to demonstrate quality of care and a cost-effective use of allocated resources. Furthermore, systems for clinical audit and governance provide a solid base for research, facilitate future development and are likely to increase the attraction of a professional workforce to the speciality. Consistent and comparable data from all Scandinavian countries should preferably be collected to guarantee clinical competence and effectiveness. This may also be a powerful way to monitor dynamically the effects of a broad range of interventions over time.

Strengths–weaknesses–opportunities–threats (SWOT) analysis

In addition to the input received from the national societies, the task force behind this document performed a SWOT analysis of the position of Scandinavian anaesthesiologists (Table 2). Such a SWOT analysis should be regularly repeated and followed up with strategic and action plans to strengthen and ensure the continuous growth of the speciality.

Strategic plans for the future

The proposed future strategy is based on the following assumptions:

- The majority of Scandinavian hospitals will remain public. Private hospitals will mainly provide elective health services.
- The distinction between acute and elective health care will increase.
- Hospitals will become centralised and larger.
- Primary care doctors will take care of the majority of non-life-threatening, out-of-hospital emergencies. Concomitantly, the need for advanced pre-hospital and inter-hospital medical care will expand (transport medicine).
- The demand for intensive care will increase.
- Patients will become older, sicker and medical procedures will become less invasive.

Table 2

The results of a Strengths – Weaknesses – Opportunities – Threats (SWOT) analysis concerning Scandinavian anaesthesiology in the future.

Strengths	Opportunities
Team approach	Pro-active attitude
Currently an attractive specialty for medical students	Increase need for our services
Well described and developed education	Overall presence
High-tech practice	Broad field of activity
Prestigious specialty	Leadership
Trained in complex environment/structures/medical conditions	
Weaknesses	**Threats**
Lack of involvement by practising anaesthesiologists	The team falling apart
Research activity too low/ research opportunities not exploited	New European (UEMS) specialties (Emergency Medicine, Intensive Care Medicine)
Shortage of manpower	Anaesthesia nurse practice without an anaesthesiologist
Lack of strategic planning (spread of resources)	Non-anaesthesiologist administered propofol sedation
Lack of international/European professional standards	

- There will be a change in social and professional expectations as well as raised public demands for quality of care and new medical interventions. This will add to the discrepancy between expectations and funding for health services. Financial constraints will make more frequent prioritisations necessary.
- Workplace regulations will continue to affect how services are scheduled and staffed. The majority of physicians will be female. Similar to other physicians, anaesthesiologists will have greater than before social expectations for a life outside work with time for children, family and leisure activities.
- Working hours for the individual anaesthesiologist will decrease, making it more difficult to maintain a broad scope of practice. Further specialisation of anaesthesiologists will be needed. The UEMS term PMC will be used to describe the further education obtained by accredited specialists.

Anaesthesia and perioperative medicine

Health care systems will need to optimise the perioperative period by involving the expertise of anaesthesiologists. There is an obvious need for continuity and a systematic approach in order to optimise patient flows. Data collection and bench marking of perioperative processes and patient outcomes will make evaluation possible and establish premises for ongoing improvements.

Intensive care medicine

Further training in intensive care medicine of specialists in anaesthesiology will increase the quality of treatment and patient outcomes and ensure that anaesthesiologists remain in the lead of this medical field in Scandinavia. A set of minimum requirements for other specialities to enter advanced educational programmes in intensive care needs to be defined as multidisciplinary intensive care develops further as a PMC. The SSAI suggests that 24 months of training in perioperative anaesthesia are required for other UEMS-recognised medical specialists to be eligible to enter an educational programme leading to a PMC in intensive care medicine.

Critical emergency medicine (CREM)

The anaesthesiologist has key knowledge and skills to treat the critically ill and injured patient irrespective of location. Hence, the anaesthesiologist should manage these patients whether in the pre-hospital phase, in the emergency department or in the intensive care unit. Some of the conflict between the advocates of a separate Scandinavian speciality in emergency medicine and anaesthesiologists may relate to a different understanding of the terminology. The SSAI suggests that anaesthesiologists not broadly trained similar to the internationally recognised medical speciality emergency medicine[17] should use the term CREM, to define their scope of practice, which is immediate life support and resuscitation of critically ill and injured patients in the pre-hospital as well as hospital settings.

Pain medicine

The analysis and treatment of acute and malignant pain is part of the core curricula for all anaesthesiologists.[18] The anaesthesiologist should be member of multidisciplinary teams treating chronic pain patients. To make sure that acute and chronic pain treatments are integrated, it is important to retain the pain clinic in the same organisation as the other anaesthesiology services and under the leadership of a well-trained anaesthesiologist in pain medicine.

Advanced educational programmes

Advanced educational programmes similar to the ones currently running should be arranged for Scandinavian participants to maintain sufficient volume and quality at a standard corresponding to a PMC. The following programmes are considered to be of high priority (listed chronologically with respect to the first date of announcement):

- Intensive care medicine
- Advanced pain medicine
- Paediatric anaesthesia and intensive care
- Obstetric anaesthesia and intensive care
- Critical emergency medicine (CREM)

Other possible competencies targeted in Scandinavian advanced educational programmes include perioperative medicine, cardiothoracic anaesthesia, neuro-anaesthesia and a more general anaesthesia programme with a focus on orthopaedic and trauma patients, bariatric surgery and geriatric issues. Clinical management and leadership should also be considered. New advanced educational programmes should be established based on the

assessment of needs and suggestions from the SSAI members.

Leadership

The SSAI recognises the importance of leadership and organisational issues in the development of Scandinavian anaesthesiology. An annual Scandinavian meeting focusing on such topics convening health care opinion leaders, hospital administrators and key decision makers could prove valuable. Leadership and organisation themes should also be part of the SSAI congress programmes.

Recruitment

Anaesthesiologists need to play an active role in the training of medical students to ensure future recruitment to the speciality. Anaesthesiologists should also promote and improve national programmes for continuous professional development. Creating training positions that combine clinical work and research may further increase recruitment to the speciality. Anaesthesiologists should, as dedicated team workers, lead further developments in the use of simulation-based training and crew-resource management. It is of foremost importance to ensure visibility of our speciality and our national societies in Scandinavia and in the individual countries.

Organisation

At present, a wide range of anaesthesiology services are organised and named differently throughout Scandinavia, with no given singular preference. Notwithstanding, the SSAI suggests that a generic structure encompassing the entire field of anaesthesiology (perioperative medicine, anaesthesia, operation theatres, intensive care units, pain clinics, critical emergency medicine) defines the organisational basis, with a common administrative leadership that must include an anaesthesiologist. An adequately trained anaesthesiologist may also hold the medical leadership for pre-hospital and hospital emergency medical services.

Research

Continuing high-quality research is pivotal for further development of the speciality. The SSAI recognises the critical importance of common and harmonised standards for research procedures, involving boards for ethical approval, data inspection and national and European drug and products agencies. The SSAI will continue to support and develop platforms for benchmarking, audits and clinical research to utilise the full potential of the entire Scandinavian population. Strategies for funding will need to be given high priority.

Quality of care and patient safety

Anaesthesiologists have been pioneers in promoting quality of care and patient safety in hospitals.[19] As a key speciality handling both elective and emergency patients, the SSAI will continue to promote quality of care and patient safety through improved educational programmes, use of modern educational methods including simulation,[19–21] clinical practice guidelines, audits and benchmarking.

Conclusions

In Scandinavia, the medical speciality anaesthesiology comprises anaesthesia and perioperative medicine, intensive care, pain and CREM. The Scandinavian practice in anaesthesia and intensive care is based on a team model where the anaesthesiologists work together with highly educated nurses. The training in the various Scandinavian countries is very similar and provides a stable foundation for the speciality. The SSAI, however, recognises the increased need and desire for further training of specialists in anaesthesiology. Therefore, the advanced educational programmes for specialists should be expanded and include formal assessment(s) leading to a PMC as defined by the UEMS. In this way, Scandinavian anaesthesiologists will also remain leaders in intensive care, pain and critical emergency medicine in the future.

SSAI acknowledges that anaesthesiologists have played and will continue to play an active role in the design of health care delivery, hospital infrastructure and patient flows. Therefore, leadership and management skills should be integral parts of both training and specialist positions.

SSAI recommends that all anaesthesiology services be organised in a common administrative fashion. This will establish optimal premises for quality of care and resource utilisation, improve patient safety and safeguard the common professional interests of anaesthesiologists.

SSAI recognises the importance of having a sustained focus on maintaining recruitment to the speciality and the factors affecting this. Failure to

do so will severely affect the development of the speciality by work force limitations.

SSAI strongly believes that only a joint Scandinavian venture will create sufficient momentum to play an active role in shaping European clinical and academic anaesthesiology and intensive care medicine. Therefore, SSAI will continue to provide platforms and networks for research, education and clinical practice. The SSAI will, in addition, strive for formal representation in the various bodies of European and international societies of anaesthesiology and intensive care medicine. The Scandinavian way of practice should aspire to be a role model for other parts of Europe and the world.

References

1. Lindahl S. The Scandinavian society of anaesthesiology and intensive care medicine – from vision to implementation. Acta Anaesthesiol Scand 2000; 44: 1035–7.
2. Lofstrom JB. The polio epidemic in Copenhagen in 1952 – and how the anaesthetist came out of the operating room. Acta Anaesthesiol Scand 1994; 38: 419.
3. Lindahl SG, Takala J. A new Nordic program for training in intensive care. Acta Anaesthesiol Scand 1998; 42: 1131–2.
4. Lindahl SG. Future anesthesiologists will be as much outside as inside operating theaters. Acta Anaesthesiol Scand 2000; 44: 906–9.
5. Lindahl SG. Some aspects of Nordic anesthesiology: past, present and future. Acta Anaesthesiol Scand 2005; 49: 894–7.
6. De Robertis E, McAdoo J, Pagni R, Knape JT. Core curriculum in emergency medicine integrated in the specialty of anaesthesiology. Eur J Anaesthesiol 2007; 24: 987–90.
7. Soreide E, Eriksson LI, Hirlekar G, Eriksson H, Henneberg SW, Sandin R, Raeder J. Pre-operative fasting guidelines: an update. Acta Anaesthesiol Scand 2005; 49: 1041–7.
8. Kroigaard M, Garvey LH, Gillberg L, Johansson SG, Mosbech H, Florvaag E, Harboe T, Eriksson LI, Dahlgren G, Seeman-Lodding H, Takala R, Wattwil M, Hirlekar G, Dahlen B, Guttormsen AB. Scandinavian clinical practice guidelines on the diagnosis, management and follow-up of anaphylaxis during anaesthesia. Acta Anaesthesiol Scand 2007; 51: 655–70.
9. Berlac P, Hyldmo PK, Kongstad P, Kurola J, Nakstad AR, Sandberg M. Pre-hospital airway management: guidelines from a task force from the Scandinavian society for anaesthesiology and intensive care medicine. Acta Anaesthesiol Scand 2008; 52: 897–907.
10. Castren M, Silfvast T, Rubertsson S, Niskanen M, Valsson F, Wanscher M, Sunde K. Scandinavian clinical practice guidelines for therapeutic hypothermia and post-resuscitation care after cardiac arrest. Acta Anaesthesiol Scand 2009; 53: 280–8.
11. Breivik H, Bang U, Jalonen J, Vigfusson G, Alahuhta S, Lagerkranser M. Nordic guidelines for neuraxial blocks in disturbed haemostasis from the Scandinavian society of anaesthesiology and intensive care medicine. Acta Anaesthesiol Scand 2010; 54: 16–41.
12. Åneman A, Mellin-Olsen J, Søreide E. The future role of the Scandinavian anaesthesiologist: a web based survey. Acta Anaesthesiol Scand 2010; 54: 1071–76.
13. Skram U, Larsen B, Ingwersen P, Viby-Mogensen J. Scandinavian research in anaesthesiology 1981–2000: visibility and impact in EU and world context. Acta Anaesthesiol Scand 2004; 48: 1006–12.
14. Zorab JS. The educational activities of the European academy of anaesthesiology. Minerva Anestesiol 1998; 64: 477–82.
15. Cobatrice. The educational environment for training in intensive care medicine: structures, processes, outcomes and challenges in the European region. Intensive Care Med 2009; 35: 1575–83.
16. Alahuhta S, Mellin-Olsen J, Blunnie WP, Knape JT. Charter on continuing medical education/continuing professional development approved by the UEMS specialist section and European board of anaesthesiology. Eur J Anaesthesiol 2007; 24: 483–5.
17. Petrino R, Bodiwala G, Meulemans A, Plunkett P, Williams D. EuSEM core curriculum for emergency medicine. Eur J Emerg Med 2002; 9: 308–14.
18. Breivik H, Lindahl SG. Training programme in advanced pain medicine for Nordic anaesthesiologists. Acta Anaesthesiol Scand 2001; 45: 1191–2.
19. Byrick RJ, Naik VN, Wynands JE. Simulation-based education in Canada: will anesthesia lead in the future? Can J Anaesth 2009; 56: 273–5, 275–8.
20. Lippert A, Nielsen MS, Ostergaard D. Medical simulation in anesthesiology. The Danish society of anesthesiology and intensive medicine. Ugeskr Laeger 2004; 166: 1102.
21. Ostergaard HT, Ostergaard D, Lippert A. Implementation of team training in medical education in Denmark. Qual Saf Health Care 2004; 13 (Suppl 1): i91–5.

Address:
Prof. *Eldar Søreide*
Department of Anaesthesiology and Intensive Care
Stavanger University Hospital
PO Box 8100, 4068 Stavanger
Norway
e-mail: soed@sus.no

Appendix 1: An overview of the work and processes of the Position Paper Task Force for the SSAI

January 2008: The SSAI President Eldar Søreide suggested a Position Paper on the status and future of Scandinavian anaesthesiology at the SSAI Board Meeting in Copenhagen.

June 2008: Presentation, discussion and approval of a Position Paper Task Force at the SSAI Board Meeting in Copenhagen, Denmark.

September 2008: The Position Paper Task Force met at Gällöfsta outside Stockholm, Sweden.

Participants: Torsten Gordh, Per Kristian Hyldemo, Mogens Hüttle, Sigridur Kalman, Freddy Lippert,

Jannicke Mellin-Olsen, Ole Hegnet Nørregaard, Minna Niskanen, Pertti Pere, Eldar Søreide, Riikka Takala, Jan Wernerman, Anders Åneman,

January 2009: Presentation and discussion of the Position Paper Task Force and its work at the SSAI Board Meeting in Copenhagen, Denmark.

June 2009: Presentation and discussion of the Internet survey and the Position Paper work at the Board Meeting and General Assembly during the 29th SSAI Congress in Odense, Denmark.

September 2009: The Position Paper Writing Group met at Såstaholm outside Stockholm, Sweden.

Participants: Sigridur Kalman, Jannicke Mellin-Olsen, Ole Hegnet Nørregaard, Pertti Pere, Eldar Søreide, Anders Åneman,

January 2010: Preliminary approval of the Position Paper by the SSAI Board in Helsinki, Finland

March 2010: The Position Paper circulated for comments from the National Boards of the five SSAI member countries.

May 2010: Final approval of the Position Paper by the SSAI Board in Bergen, Norway.