

CONTRACT

FOR THE SSAI TRAINING PROGRAMME IN INTENSIVE CARE MEDICINE IN THE NORDIC COUNTRIES

Parties involved

1. Trainee:
2. Tutor:
3. SSAI representative: Associate Professor Christian Rylander, Uppsala University Hospital, Uppsala, Sweden, Director of the SSAI-Advanced Training Programme in Intensive Care Medicine.....
4. Chairman of the host clinic:

General circumstances

Scandinavian Society of Anaesthesiology and Intensive Care Medicine, SSAI, coordinates an Inter - Nordic training programme in intensive care medicine (SSAI-IC) for young specialists in Anaesthesiology. The programme is also open for specialists outside anaesthesiology. For such candidates a minimum of one year of full time general anaesthesia practice is mandatory to be accepted as trainee in the programme. This anaesthesia practice should be less than 3 years old.

- The SSAI-IC programme corroborates with the European Society of Intensive Care Medicine standards by implementing the European Diploma of Intensive Care Medicine (EDIC) as a requisite to acquire the SSAI Diploma in Intensive Care Medicine.
- All participants of the SSAI training programme must be members of a national body within the SSAI.

- The training programme encompasses 2 years of intensive care medicine training.
- A minimum of one year of clinical training should be done at a university clinic.
- During the training period the trainee is designated a host clinic.
- The host clinic(s) will employ the trainee in an appropriate position for the duration of the training programme.
- The host clinic(s) will appoint a tutor for the trainee. It is the responsibility of procedural skills as recommended in the training objectives (appendix 1).
- The trainee will participate and complete 5 four-day educational courses organized by SSAI during the 2-year training programme (appendix 4).
- The trainee will complete an “ICU Project” during their 2 years training (appendix 2).
- The training period also includes an exchange programme with a university clinic in another country. The duration of the exchange period and the salary may be negotiated by the host clinic(s) representative(s) and the trainee, thus allowing flexibility regarding costs containment and available resources.
 - a. The international rotation is traditionally a rotation of 3 months at an ICU in another country.
 - b. This may be transformed into two auscultation periods of 2 weeks at two different units in different countries.
 - c. The third alternative is a one-week auscultation during no less than 5 full working days at the unit under special conditions (appendix 3).
- The trainee must pass the examination for the European Diploma in Intensive Care Medicine by the European Society of Intensive Care Medicine (EDIC I and II) in order to be awarded the Scandinavian Diploma in Intensive Care Medicine.
- At the end of the 2 year training period the trainee submits a report to the SSAI-IC training programme director evaluating the practical and theoretical training objectives of the SSAI-coordinated training programme (appendix 6).

Deviations from the standard SSAI contract must be approved by the national representative(s) of the SSAI Steering Committee for the Inter-Nordic training programme in Intensive Care Medicine.

Responsibilities of the host clinic(s), SSAI and the trainee

Responsibilities of the host clinic(s).

- The host clinic(s) will organize for the trainee a training programme that will cover major fields of intensive care medicine.
- The training programme will start simultaneously between January 1 and March 1, 2022 for all trainees in the Nordic countries.
- The host clinic(s) will employ the trainee in an appropriate position during the 2 years of the training programme.
- The host clinic(s) will appoint a tutor for the trainee.
- The host clinic will provide the necessary facilities and time (2-4 weeks per year) for the trainee to complete the ICU project (appendix 2).
- All expenses for the SSAI-coordinated training programme in Intensive Care Medicine (including travelling, accommodation and a fee for each course) have to be covered by the host clinic(s) (appendix 4).
- The host clinic(s) and the trainee will cooperate with the national representative(s) of the SSAI-IC Steering Committee in organizing an exchange programme (appendix 5). The exchange programme may be organized as:
 1. A direct exchange between 2 clinics in different countries.
 2. A visit to a foreign clinic funded by the host clinic(s) or by research funds.
 3. A position (locum) at the receiving clinic.
- During the exchange period the host clinic(s) will help the trainee with solving local problems such as accommodation and temporary certification.

Responsibilities of SSAI

- SSAI will during the two-years training period organize 5 courses each of 4 days duration, for all participating trainees in the Nordic countries and the common language will be English.
- SSAI (national representative(s) of the SSAI-IC Steering Committee, see appendix 5) will facilitate, together with the trainee and the participating host clinics, an exchange programme that allows the trainees a temporary stay in a clinic in another country.

- SSAI (the national representative(s) of the SSAI-IC Steering Committee, appendix 5) will assist the trainee and the tutor starting and conducting the ICU-Project by request.
- SSAI will have the Steering Committee with 1-4 members from each Nordic country at the disposal during the programme. This committee will coordinate the training programme and help in solving practical problems that may arise (appendix 5).

Responsibilities of the trainee:

- During the 2 years of training the trainee will actively participate and assist the host clinic(s) in performing clinical duties including acquisition of advanced theoretical knowledge and training in cognitive, attitudinal, practical and procedural skills as recommended in the training objectives (appendix 1).
- To finally obtain the SSAI Scandinavian Diploma in Intensive Care Medicine, the trainee must attend the examination for the European Diploma in Intensive Care Medicine and acquire the European Diploma in Intensive Care (EDIC I and II) awarded by the European Society of Intensive Care Medicine (ESICM, www.esicm.org/).
- The trainee should send the organizers of the courses confirmation that the course fee has been paid (bank transfer account no or another kind of confirmation) at latest 30 days before the start of each course. If payment is not done in proper time, the trainee might not be allowed to attend the course.
- E-mail and Base-Camp (or other web based platforms as notified in the future) will be used for communication between the Steering Committee members/course organizers/SSAI-IC secretary and the trainee/tutor/head of department.
- The trainee must keep a record of his/her completion of the different parts included in the Scandinavian Diploma in Intensive Care. See attached application form for the Scandinavian Diploma (appendix 6).

Responsibilities of the tutor

- The tutor should guide the trainee during the whole training period in order to help the trainee to fulfil the contract. This is best done by regular meetings i.e. every third month to discuss how the training proceeds.
- The tutor should be advisor and counsellor for the trainee with regard to the “ICU Project”.
- The tutor should guide the trainee on how to prepare for the EDIC I and II.

Training objectives

Contents of clinical training

The training programme will cover all essential fields of Intensive Care Medicine. This can be organized either on a general intensive care unit with complement of medical and surgical specialists or by combining training in several specialized intensive care units.

The intensive care units participating in the training programme should fulfill the following requirements:

1. Designated medical and nursing directors.
2. Dedicated intensive care medicine specialists.
3. Full in-house coverage of patient care round the clock.

The training will include approximately 12 months in a general intensive care unit.

The remaining 12 months should consist of training in at least two of the following intensive care units with:

- Cardiovascular surgical, thoracic surgical and cardiac intensive care patients.
- Neurosurgical and neurological intensive care patients.
- Neonatal/pediatric intensive care patients.
- Burn-injuries.

The period of time spent in each intensive care unit may vary according to educational purposes.

Diploma and certification

The Diploma in Intensive Care Medicine from the SSAI will be received by the trainee after fulfilling all the items listed in appendix 6.

Expenses for the programme

The course fee for each of the five courses is 900 Euros/course. The course fee usually includes free lunch/coffee during the course but it does not include travel expenses and accommodation that should be covered by the host clinic. Other arrangement concerning finances has to be approved by the steering group.

In addition, the sending hospital department has to cover the salary for the participant and his/her replacement.

Signatures:

Trainee	_____	Date _____
SSAI representative	_____ Christian Rylander, Director of the SSAI training Programme in Intensive Care Medicine	Date _____
Chairman of the host clinic 1	_____	Date _____
Chairman of the host clinic 2	_____	Date _____
Chairman of the host clinic 3	_____	Date _____
Tutor	_____	Date _____

Appendix 1

Aims of the training

- Acquire comprehensive theoretical knowledge in intensive care medicine.
- Acquire sufficient clinical experience and technical skill to identify and handle complex clinical problems and diseases encountered in the intensive care unit.
- Acquire knowledge and mastery of the medical technology used in the intensive care units.
- Acquire knowledge of appropriate ethical standards and ability to cope with the psychological and social effects of critical illness on patients and their relatives.
- Acquire ability to take full responsibility for the quality of treatment and care of the critically ill patient.
- Acquire ability to work in a multi-disciplinary team.
- Acquire knowledge of contemporary research fields.
- Acquire ability to design local standard protocols for quality assurance studies and/or specifications of requirements for purchase within clinical relevant issues.

Areas of training

The programme provides acquisition of advanced theoretical knowledge and training in cognitive, attitudinal, practical and procedural skills including application of indications and contraindications, recognition of pitfalls, management of complications of diagnostic and therapeutic procedures, interpretation of data obtained from clinical examination, monitoring and laboratory investigations and determination of actions based on theoretical considerations and the available clinical information.

Methods of training

- Promotion of quality care in the ICU and efficient use of critical care resources with the supervision of the tutor and/or other advanced training instructors.
- Daily clinical rounds.
- Performing critical care procedures.
- Active participation in clinical conferences.
- Evaluation of treatment modalities and participation in quality improvement.
- Intensive Care Medicine services on a 24/7 basis.
- Unit management.
- Communication and collaboration.
- Participation in continuing medical education and research programmes.
- ICU Project.
- Participation in the 5 courses organized by SSAI.
- Current with the medical literature.

Evaluation

- Discussions with the tutor and/or the advanced training instructors every 3 months.
- Joint meetings arranged by the SSAI programme committee at each of the 5 courses.
- A written report evaluating the practical and theoretical training objectives of the 2 year SSAI-coordinated training programme, made by the trainee.
- The ICU-Project.
- European Diploma in Intensive Care Medicine.

Contents of the training

Training in practical, attitudinal and procedural skills.

- General/attitudinal: Identification and management of the critical ill patient and awareness of ethical, legal and psychosocial factors.
- Respiratory: recognition, assessment. Basic and advanced management of respiratory distress.
- Cardiovascular: recognition, assessment and management of acute circulatory problems and crises. Basic and advanced cardiopulmonary resuscitation.
- Neurological/Psychiatric: recognition, global assessment and management of common acute neurological and psychiatric problems.
- Renal: recognition, assessment and basic and advanced management of acute renal failure.
- Metabolic: recognition, assessment and treatment of acute metabolic and endocrine crises.
- Gastrointestinal: recognition, assessment and treatment of gastrointestinal crises and hepatic failure.
- Haematological: recognition, global assessment and treatment of coagulation disorders, anaemia and transfusion reactions.
- Infection: recognition, assessment and treatment of manifest or suspected infection.
- Nutrition: assessment of nutritional needs and knowledge of techniques to fulfil these needs.
- Toxicology/drug overdose: recognition, assessment and treatment of intoxications.
- Trauma: assessment and treatment of the trauma patient.
- Monitoring and life support devices.
- Pharmacology: implementation and control.
- Ethical: guidelines, DNR and treatment limitations, patients and family's wishes.
- Organizational: Structure, coordination and quality of patient management. Risk estimation. Triage. Cost containment. Data management systems.

Theoretical knowledge

Theoretical knowledge of the following topics and disorders (including - when applicable- physiology, pathophysiology, pathology, symptomatology, complications, diagnosis and differential diagnosis, prophylaxis and therapy):

- Basic and advanced CPR and cerebral resuscitation

- Respiratory
- Cardiovascular
- Neurological/Psychiatric
- Renal (including electrolytes, acid-base balance)
- Infection and antibiotics
- Haematological
- Gastrointestinal
- Obstetrical/urogenital
- Metabolic and endocrinological
- Nutritional
- Drug overdose and intoxication
- Immunology and transplantation
- Multiorgan dysfunction
- Trauma, burns and environmental insults
- Sedation and analgesia
- Vasoactive drugs
- Pharmacology
- Monitoring
- Transportation
- Organizational/administrative
- Ethical

Patient management experience

Proper training and personal experience in the management of critically ill patients.

For further details please consult:

Society of Intensive Care Medicine and European Society of Pediatric Intensive Care:
Guidelines for a training programme in intensive care medicine European. Intensive Care
Med 1996; 22: 166 - 172.

American College of Critical Care Medicine of the Society of Critical Care Medicine:
Guidelines for advanced training for physicians in critical care. Crit Care Med 1997; 25: 1601
- 1607.

Appendix 2

ICU Project

As part of the two year educational programme of intensive care medicine of the Scandinavian Society of Anaesthesiology and Intensive Care Medicine the trainees must perform an ICU Project.

A preliminary plan/protocol for the ICU project must be included with the application.

Objective

To practice the competence of doing quality controls according to general scientific principles.

To document the ability to independently assess available information or to produce and aggregate information in clinically relevant questions as a basis for local protocols or to be able to formulate specifications of requirements for purchases, an ICU Project is a part of the training programme. In addition, it is important to be able to conduct a quality control studies in own intensive care unit of key indicators of ICU management quality such as incidence of ventilator induced pneumonia, catheter sepsis, outcome of septic shock treatment etc.

Method

ICU Project could be

- Research project, observational study, interventional study etc.
- Quality control/development project.

Systematic literature review, which may involve a case report or a case series. The topics must be related to intensive care medicine. If the trainee has already ongoing project it may be included.

Preparation – presentation - endorsement

1. **Project Topic and Design:** The project topic and design as well as project tutor must be a part of the application in September, 2021. A PowerPoint presentation w 5-6 slides should be prepared about the proposed project to be presented at the first course held in Uppsala-Stockholm in March 2022. The presentation should include: Title, authors, aim and method. The national representatives may assist in this matter if requested.

2. **Ethical approval:** The project must be performed in accordance with the Helsinki Declaration and that any applicable permission has to be obtained from the appropriate ethics committee and other relevant, national bodies (deadline March 1, 2021).
3. **Abstract:** Write a 250-500 words abstract (deadline August 1, 2023) in accordance with the manuscript instructions for authors Acta Anaesthesiologica Scandinavica (<http://www.wiley.com/bw/submit.asp?ref=0001-5172&site=1>) and submit to the Reykjavik course director (gislihs@landspitali.is) with a cc to your national representative(s) of the SSAI-IC Steering Committee.
4. **PPT Presentation:** Prepare a 15 min PowerPoint presentation of the ICU Project to be presented and evaluated during the Reykjavik course in September 2023. The PowerPoint presentation should be submitted to the Reykjavik course director (gislihs@landspitali.is) with a cc to your national representative(s) of the SSAI-IC Steering Committee.
5. The language is English.
6. The national representatives are willing to assist the trainee by advice to formulate an appropriate project (appendix 5).

Examples of what can be accepted as ICU project:

1. Research that is a part of ongoing or recently completed PhD work.
2. Retrospective evaluation of a clinical ICU problem.
3. Retrospective or prospective quality assurance study, for example
 - a. VAP incidence in your ICU during one year.
 - b. Causes and outcome of sepsis in your ICU during one year.
 - c. Adherence to “Surviving sepsis guidelines in your ICU”.
 - d. Incidence of acute kidney injury according to RIFLE in your ICU during one year.
 - e. Quality of nutrition in your ICU (which route, how fast, how much etc.).
4. Quality assurance/development project.

Comprehensive review article on an ICU relevant topic, for example: Treatment of sepsis, Tight glucose control, Hypothermia after cardiac arrest, Use of glutamine in ICU patients. Such review must be based on a comprehensive literature review.

Appendix 3

International Rotation

The international rotation serves several purposes besides training in quality control. The aim is also to provide the candidates with a competence in adapting and transferring new treatment modalities from other units, and to learn about differences in logistics, organisation and routines between different countries.

The international rotation is traditionally a rotation of not less than 3 months at an ICU in another country and the SSAI-IC Steering Committee strongly supports that tradition. This may be transformed into two auscultation periods of 2 weeks at two different units in different countries. The third alternative is a one week auscultation period in presence at the unit during not less than 5 full working days, accompanied by a written report to the national representative(s) and accompanied by an oral presentation at the home department approved and certified by the tutor. It is advisable that such a report focuses upon specific tasks where a comparison between the home unit and the visited unit may be of special interest.

The host clinic(s) and the trainee will cooperate with the national representative(s) of the SSAI-IC Steering Committee in organizing an exchange programme (appendix 5).

Appendix 4

Courses of the SSAI training programme in Intensive Care Medicine 2022-2023

Time	Site	Organizer
2022 March 28-31	Karolinska University Hospital, & Uppsala University Hospital, Stockholm , Sweden	Prof. Sten Rubertsson sten.rubertsson@akademiska.se Prof. Miklos Lipcsey miklos.lipcsey@surgsci.uu.se Dr. Anna Somell anna.somell@regionstockholm.se
2022 May 3-6	Copenhagen University Hospitals, Copenhagen , Denmark	Assoc.Prof. Morten H. Bestle morten.bestle@regionh.dk Dr. Meike Tomesch Behzadi meike.tomesch@rn.dk Dr. Sigurdur Sigurdsson sigurdur.thor.sigurdsson@regionh.dk
2023 January 24-27	Helsinki University Hospital, Helsinki , Finland	Assoc. Prof. Johanna Hästbacka johanna.hastbacka@hus.fi Assoc. Prof. Erika Wilkman erika.wilkman@hus.fi Prof. Matti Reinikainen matti.reinikainen@kuh.fi Prof. Markus Skrifvars markus.skrifvars@hus.fi

<p>2023 April 24-27</p>	<p>Oslo University Hospital & Bergen University Hospital, Oslo, Norway</p>	<p>Prof. Hans Flaatten hans.flaatten@helse-bergen.no</p> <p>Prof. Anne Berit Guttormsen anne.guttormsen@helse-bergen.no</p> <p>Prof. Tor Inge Tønnessen t.i.tonnessen@medisin.uio.no</p> <p>Dr. Leonie Schwarz Gabriele.leonie.schwarz@helse-bergen.no; leonie.schwarz@icloud.com</p> <p>Dr. Søren Pischke s.e.pischke@medisin.uio.no</p>
<p>2023 Sep 6-9</p>	<p>Landspítali University Hospital, Reykjavik, Iceland</p>	<p>Prof. Gisli H. Sigurdsson gislihs@landspitali.is</p> <p>Prof. Martin Ingi Sigurdsson martin.ingi.sigurdsson@landspitali.is, martiningi@gmail.com</p> <p>Dr. Katrin Thormar. katrinthormar@gmail.com, katrin.maria.thormar@landspitali.is</p>

Appendix 5

SSAI-IC Programme Steering Committee:

Administration

- Assoc. Prof. Christian Rylander (chair), Uppsala University Hospital, Uppsala, Sweden, christian.rylanderc@akademiska.se, phone +46 736 60 14 75
- Katja Andersson (secretary), Uppsala University Hospital, Uppsala, Sweden, katja.andersson@surgsci.uu.se

National representatives

- Assoc. Prof. Johanna Hästbacka, Helsinki University Hospital, Finland
- Prof. Martin Sigurdsson, Landspítali University Hosp, Reykjavik, Iceland martin@landspitali.is
- Prof. Gisli H Sigurdsson, Landspítali University Hosp, Reykjavik, Iceland gislihs@landspitali.is
- Dr. Katrín María Þormar, Landspítali University Hosp, Reykjavik, Iceland kata@landspitali.is
- Prof. Sten Rubertsson, Uppsala University Hospital, Uppsala, Sweden sten.rubertsson@akademiska.se
- Prof. Miklos Lipcsey, Uppsala University Hospital, Uppsala, Sweden miklos.lipcsey@surgsci.uu.se
- Dr. Anna Somell, Karolinska University Hospital, Huddinge, Sweden anna.somell@sll.se
- Dr Rosa Vieweg, Linköping University Hospital, Linköping, Sweden rosavieweg@me.com
- Assoc. Prof. Morten H. Bestle, Nordsjællands Hospital, University of Copenhagen, Denmark morten.bestle@regionh.dk
- Dr. Meike Tomesch, Aalborg University Hospital, Ålborg, Denmark, meike.tomesch@rn.dk
- Dr Sigurdur Sigurdsson, Rigshospitalet, Copenhagen, Denmark, sigurdur.thor.sigurdsson@regionh.dk
- Prof. Hans Flaatten, Haukeland University Hospital, Bergen, Norway, hans.flaatten@helse-bergen.no, hans.flaatten@kir.uib.no
- Prof. Tor Inge Tønnessen, Oslo University Hospital, Oslo, Norway, t.i.tonnessen@medisin.uio.no
- Dr. Leonie Schwarz, Haukeland University Hospital, Bergen, Norway gabriele.leonie.schwarz@helse-bergen.no

APPENDIX 6

Application for SSAI-IC Diploma

Completed 2-year training in host clinic(s):
from.....to.....
from.....to.....
from.....to.....
from.....to.....

Participation in SSAI-IC courses:
Stockholm/Uppsala, Sweden *Date:*
Copenhagen, Denmark *Date:*
Helsinki, Finland *Date:*
Bergen, Norway *Date:*
Reykjavik, Iceland *Date:*

Completed "ICU project" Presentation...date.....
Project title:

EDIC Idate **EDIC II**.....date

Completed clinical exchange programme in another country
 Clinic.....from.....to.....
 Clinic.....from.....to.....

Membership in SSAI from.....to.....

Date:

Date:

.....
Signature trainee

.....
Signature tutor