

Annual Report

2023

Research Center for
Emergency Medicine



Data sheet

Annual Report 2023 – Research Center for Emergency Medicine

The annual report is composed and published in cooperation with researchers and colleagues affiliated with Research Center for Emergency Medicine.

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Editor

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Preface

Dear Colleague,

I am pleased to present the 2023 Annual Report of the Research Center for Emergency Medicine (RECEM). This report highlights our researchers' efforts to advance emergency medicine and improve patient outcomes.

The report provides an overview of our activities and academic programs in 2023. Collaboration among researchers from diverse clinical backgrounds has been instrumental in our achievements. In addition, we present the mission, vision, and strategic goals for the coming years.

We extend our gratitude to our collaborators, both locally and internationally, as well as to the patients and families who participated in our research studies.

We are always looking for new researchers and collaborators, so do not hesitate to contact us. You can also find more information about us on [Facebook](#) and [LinkedIn](#).

We hope this report serves as both informative and inspiring.

Best regards,



Marianne Lisby
Associate Professor, Ph.D., MHSc, RN
Leader of the Research Center for Emergency Medicine



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1. About us - Research Center for Emergency Medicine

The Research Center for Emergency Medicine (RECEM) is established to initiate and stimulate research in this newly implemented, medical specialty in Denmark (2018). RECEM is affiliated with the Department of Clinical Medicine at Aarhus University and the Emergency Department at Aarhus University Hospital.

The research environment is occupied by most academic positions, from bachelor students and PhD students to established researchers and professors. By embracing various healthcare professions and research methods, we strive to reflect the interdisciplinary nature of emergency medicine in our research activities. Currently, we are 5 associate professors, 5 Ph.D. students, 4 research year students, and around 4-6 master- and elective course students. In recent years, we have annually published more than 50 peer-reviewed papers.

Many of our research activities are structured in networks, e.g., Trauma, Resuscitation, Ultrasound, Patient safety, Design EM (organizational research). RECEM provides an excellent research environment, and we aim to establish new collaborators and projects continuously within the research field of emergency medicine. Internationalization is a high priority. RECEM has worldwide research collaborations and leads international projects.

We are proud to announce that Bas De Groot will serve as part time professor (25%) in RECEM for the



coming 5 years. He is from the Netherland and has a clinical background as emergency physician from, among others, Radboud University Hospital. Besides emergency medicine, Bas De Groot's research covers screening tools and frail older patients.

2. Mission, vision, and strategy

Mission Statement

We perform national and international interdisciplinary research with the aim to provide evidence-based treatment & care cost-effectively and improve (patient-reported-) outcomes of all ED patients in a sustainable way.

Mission

The Research Center for Emergency Medicine (RECEM) generates and conveys research in the dynamic and time-constraint acute care chain with the aim to provide high quality treatment & care and improve (patient-reported) outcomes of all ED patients in a cost-effective way; hence, contributing to further evidence-based development of the specialty of emergency medicine in Denmark in a future challenged by an increasing population of elderly with multi-morbidity and less resources and healthcare personal.

Vision

In 5-10 years the Research Center for Emergency Medicine is nationally leading and internationally acclaimed within the research field of emergency medicine by its research focusing on appropriate & value-based healthcare, transitional research, and implementation and education of knowledge in the

acute care chain. In addition, RECEM is a gathering point and driving force for emergency medicine research in the Central Denmark Region.

Values

We are ambitious researchers and creative when seeking solutions to complex challenges. Our research environment is based on values of tolerance, diligence, diversity and collaboration, stimulating young talent to grow. We value international collaboration and sustainability.

Graphical overview of the mission, vision and values.



Strategic goals

In the next 5 years we will focus on three research themes, i.e. appropriate and value-based health care, transitional care, and implementation science of newly gained knowledge in the RECEM. The existing research networks will focus their research towards these 3 themes.

Societal developments like changing demographics (increasing number of (frail) older patients as well as an expected shortage of healthcare professionals demands new strategies, and research is needed to deliver solutions. In addition, research councils and grant suppliers will expect us to incorporate appropriate and value-based health care in grant applications.

Furthermore, it aligns with the 4 tracks of the strategy of the AUH and AU Health to realize the hospital's vision. Especially with the strategic goal "to do research with and for our patients", in which we will include all population groups and involve patients. Our research must benefit patients regardless of socioeconomic status, age, ethnicity and gender. Thus, as many types of patients as possible should be involved in research projects. Patients must experience that our research is relevant and should be included in, e.g., formulation of research questions, relevant outcome measures and patient information. We will ensure that by establishing a regional patient panel in emergency medicine.

Talent development

Talent development is one of the major tasks of RECEM. We provide the opportunity for students in biomedical sciences, public health, nursing, and medicine to do their scientific elective- or research year in our center or at the Radboud University Medical Centre in the Netherlands. We stimulate PhD students to:

- Follow leadership courses and programs within scientific research
- Follow courses to write grant proposals
- Build their own research network, nationally and internationally e.g., by using the networks of professors and associate professors in the RECEM
- Join editorial boards of (Q1) journals within emergency medicine
- Contribute to taskforces and committees of e.g. the European Society of Emergency medicine
- Co-supervise students within scientific electives, master theses.

In the coming 5 years, we strive to increase the number of PhD students and postdocs. In addition, our goal is to expand the number of senior researchers, in particular by employing a chair professor in emergency medicine and a professor in emergency nursing.

Teaching

We strive to establish teaching in emergency medicine to be at same level as other specialties. We give priority to teaching in all aspects of emergency medicine, regardless of profession, level of education, and clinical department. Besides individual supervision of PhD and research students, we contribute to education of medical students, residents, and allied health professionals in emergency medicine.

Management structure

Associate professor, Marianne Lisby, is currently the research leader and has the overall responsibility in close collaboration with professor Bas De Groot. The management is supported by the senior researchers in RECEM and a research secretary. The center is built on a flat organizational structure, with a democratic, equal, and open culture.

The research environment

RECEM promotes an inspiring research environment and brings talent development, staff retention, and an international vision into focus. RECEM is a multidisciplinary and interdisciplinary research center, where research and the quality of research are prioritized over the academic level, line of profession, and level of education.

Visibility and presentation

We aim to continue publishing more than 50 papers per year and in high-impact peer-reviewed international journals within the research field. Preferably together with our international collaborators. Furthermore, we seek to disseminate our research to a wide audience, including professional stakeholders and the broad public.

Research qualifications

RECEM strives to develop expertise in interventional-, qualitative-, epidemiological, and simulation research.

Cooperation

RECEM collaborates at a regional, national, and international level, and collaborates across a wide range of (academic) disciplines at the hospital as well as at the university. We continuously aim to be primary investigator for at least 1-2 national or international research projects. The list of international collaborators can be viewed in section 11.

Fundraising

We seek to obtain financial resources for ongoing and future research projects and programs. Our goal is to take home at least 1-2 larger external grants per year. The list of rewarded grants in 2023 can be viewed in section 14.

3. The field of emergency medicine

In Denmark, emergency departments have been established for several years, and in 2017 emergency medicine was officially recognized as a medical specialty. Furthermore, emergency nursing has recently gained approval as a specialized field within nursing.

Emergency medicine encompasses the provision of urgent medical care for illnesses or injuries requiring immediate attention. It spans the entire continuum of patient care, from initial contact with emergency services to hospitalization and post-discharge rehabilitation. As a multidisciplinary field, emergency medicine transcends traditional professional and organizational boundaries, interfacing with various clinical and epidemiological domains.

The impact of emergency medicine extends to approximately 350,000 hospital encounters annually in Central Denmark Region. It is imperative to prioritize the development and implementation of evidence-based practices derived from high-quality research to enhance patient outcomes, reduce societal costs, and enhance satisfaction among patients and their families

4. The academic program, publications, and foundation grants

Overview

Professors	0
Associated professors	5
Postdoc	1
PhD students	5
PhD dissertations	1
Research year students	4
Master thesis students	5
Research training students	4
Bachelor students	0
Per review publications	54
Grants	DKK 4,733,973

5. Supervision

Marianne Lisby, associate professor

PhD project, main supervisor

Trine Worm Thøgersen

Potentially preventable hospital admissions and multi-morbidity in municipal health care

Master thesis, main supervisor

Line Bilgrav Nisgaard, (MHSc)

Symptom Presentation and Referral Patterns of Acute Ischemic Stroke Patients Referred to Danish Emergency Departments: A Multicenter Cohort Study

Line Byskov Ørts, (MHSc)

The patients' most important Expectations in Association with expected Satisfaction Score and Expectations regarding Patient Involvement in the Emergency Department

Research training course, main supervisor

Sanne Schjødt

Prescription of Piperacillin and Tazobactam in Emergency Department Patients due to suspected severe Pneumonia

Sofie Damgaard Mortensen

Doctors' considerations when prescribing broad-spectrum antibiotic treatment with Piperacillin/Tazobactam in the Emergency Department: A Survey

Katrine Harkes Gull

Time from Pain Assessment to Opioid Treatment in the Danish Emergency Departments - a Multicenter Cohort Survey

Jesper Bo Weile, MD, associate professor

PhD students, main supervisor

Stig Holm Olesen

Focused Lung Ultrasound and Pneumonia in the Emergency Department

PhD students, co-supervisor

Sandra Langsted

Ultrasound-guided bedside thoracentesis and manual fluid removal in the Emergency Department

Research year students, co-supervisor

Camilla Ulsøe

Point-of-care Ultrasound in the low- and middle-income Setting

Rasmus Herløw

Peripheral Ultrasound Guided Vascular Access (PUGVA) Nurse Training Program, Development and Impact

Hans Kirkegaard, MD, professor emeritus

PhD project, co-supervisor

Stig Holm Ovesen

Focused Lung Ultrasound and Pneumonia in the Emergency Department

Sandra Langsted

Ultrasound-guided bedside thoracentesis and manual fluid removal in the Emergency Department

Stine Fjendbo Galili

Management of acute pain in patients using opioids

Kasper Glerup Lauridsen, MD, associate professor

PhD students, main supervisor

Sandra Langsted

Ultrasound-guided bedside thoracentesis and manual fluid removal in the Emergency Department

Dung N. Riis

Novel Cardiopulmonary Resuscitation Training Strategies to Improve In-hospital Cardiac Arrest Outcomes

Lene Holst Andersen

Improving Communication Skills for Residents performing Geriatric Ward Rounds – a mixed method study (Randers Regional Hospital)

PhD students, co-supervisor

Hritul Karim

Prediction models for survival after in-hospital cardiac arrest as a basis for Do-Not-Attempt-Cardiopulmonary-Resuscitation decisions (Randers Regional Hospital)

Research year students, main supervisor

Peter Jennings

A Novel Risk Assessment tool for hyperkalemia and Development of Cardiac Arrhythmia

Cecilie Langkilde Lauesen

Handover of Information from Ward Staff to the Cardiac Arrest Team during In-hospital Cardiac Arrest: Identifying Deficiencies and building a new model

Camilla Alnor Frost

Assessment of Safe Observational Time Following Direct Current Cardioversion: THE SAFE DC Trial

Sophie Paarup Thomsen

The Use of Telemetry Following Acute Myocardial Infarction

Master thesis, main supervisor

Camilla Alnor Frost

Fears and Concerns Prior to Direct Current Cardioversion: A qualitative Study

Elakiya Naveendran

Characterization of pediatric in-hospital cardiac arrest in Denmark

Shanuya Manoharan

Effects of telemetry on in-hospital cardiac arrests depending on primary heart rhythm

Nikolaj Raaber, MD

Research year students, co-supervisor

Rasmus Herløw

Effect of a nurse-performed peripheral ultrasound guided venous access workflow on time to intravenous drug administration in difficult intravenous access patients in the emergency department – a randomized controlled trial

Bo Løfgren, MD

PhD students, co-supervisor

Sandra Langsted

Ultrasound-guided bedside thoracentesis and manual fluid removal in the Emergency Department

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Characterization of pediatric in-hospital cardiac arrest in Denmark

Shanuya Manoharan

Effects of telemetry on in-hospital cardiac arrests depending on primary heart rhythm, (Randers Regional Hospital)

Hanne Mainz, postdoc

PhD students, co-supervisor

Maja Thomsen Albrechtsen

Exploring Missed Nursing Care from the perspectives of patients, (Aalborg University Hospital)

Marie Kristine Jessen, MD, PhD

Research training course, co-supervisor

Sanne Schjødt

Prescription of Piperacillin and Tazobactam in Emergency Department Patients due to suspected severe Pneumonia

Stine Fjendbo Galili, MD, PhD-student

Research training course, co-supervisor

Katrine Harkes Gull

Time from pain assessment to opioid treatment in the Danish Emergency Departments

Stig Holm Ovesen, MD, PhD-student

Research year students, co-supervisor

Camilla Ulsøe

Point-of-care Ultrasound in the low- and middle-income Setting

Rasmus Herløw

PUGVA Nurse Training Program, Development and Impact

Kristian Bøgh Jessen

Evaluation of the emergency departments fast-track at Horsens Regional Hospital

6. Current national research projects

Point-of-care ultrasound network

Effect of a Point-of-Care Ultrasound-Driven vs. Standard Diagnostic Pathway on 24-Hour Hospital Stay in Emergency Department Patients with Dyspnea – a Randomized Controlled Trial

Principal investigator: Stig Holm Ovesen, RECEM

Point-of-care ultrasound network

PUGVA nurse competence and learning study, RECEM

COPD and socially marginalized patients. Prevalence and treatment of reduced lung function among patients within the social nurses' target group

Principal investigator: Charlotte Suppli Ulrik, Hvidovre Hospital

Investigator: Marianne Lisby, RECEM

Missed Nursing Care in Danish Hospitals – a National Survey**

Principal investigator: Hanne Mainz, RECEM

Trauma network

From Trauma to Stroke: Traumatic Carotid Artery Dissections in Denmark.

Principal investigator: Nikolaj Raaber, RECEM

Missed care pediatrics

Principal investigator: Claus Sixtus Jensen, RECEM

Cardiac arrest

Team leader factors associated with in-hospital cardiac arrest after CPR quality

Principal investigator: Johannes Wittig, RECEM

Cardiac arrest

Development of a universal, low-cost individualized CPR feedback manikin system

Principal investigator: Dung N. Riis, RECEM

7. Current international research projects

The Standardized Communication to improve In-hospital Resuscitation: SCORE Trial

Principal investigator: Kasper G. Lauridsen, RECEM

Prediction models for survival after in-hospital cardiac arrest as a basis for Do-Not-Attempt-Cardiopulmonary-Resuscitation

Principal Investigator: Therese Djärv, Karolinska Institute, Sweden

Investigator: Kasper G. Lauridsen, RECEM

TAME

Targeted Therapeutic Mild Hypercapnia After Resuscitated Cardiac Arrest: A Phase III Multi-Centre Randomized Controlled Trial.

Investigator: Hans Kirkegaard, RECEM

TTH48 Targeted Temperature Management for 24 vs 48 hours

The main study is published, sub-study's in preparation

Principal investigator Hans Kirkegaard, RECEM

TTM2 – Targeted Temperature Management 2

Investigator: Hans Kirkegaard, RECEM

Resilient and safe Hospital – what can we learn from Covid-19?

Principal Investigator Marianne Lisby, RECEM

Investigators: Gitte Boier Tygesen, Hans Kirkegaard and Sara Viskum Leth RECEM

I-NEEDs: International collaboration on Nursing essential in Emergency Departments

Principal investigators: Marianne Lisby, RECEM & Katarina Göransson, Dalarna University, Sweden

Lessons learnt form translating the MISSCARE survey to the Nordic languages

Principal investigator: Kjersti Grønning, NTNU, Trondheim, Norway

Investigators: Marianne Lisby, Karen Vestergaard Andersen, and Hanne Mainz, RECEM.

Signs and symptoms in hospitalized children triggering nurses' awareness across Denmark and Norway

Principal investigator: Claus Sixtus Jensen, RECEM

8. Peer review publications

1. Andersen, H. B., Andersen, M., Andelius, T. C. K., Pedersen, M. V., **Løfgren, B.**, Pedersen, M., Ringgaard, S., Kyng, K. J. & Henriksen, T. B. (2023). Epinephrine vs placebo in neonatal resuscitation: ROSC and brain MRS/MRI in term piglets. *Pediatric Research*, 93(3), 511-519. <https://doi.org/10.1038/s41390-022-02126-4>
2. Arvig, M. D., **Weile, J. B.**, Lindberg, M., Wamberg, J. & Posth, S. (2023). Fokuseret hjerteultral lyd i akutmedicin. *Ugeskrift for Læger*, 185(25), Article V02230130. <https://ugeskriftet.dk/videnskab/fokuseret-hjerteultral lyd-i-akutmedicin>
3. Auinger, D., Orlob, S., **Wittig, J.**, Honnef, G., Heschl, S., Feigl, G. & Prause, G. (2023). Pneumothorax in a Thiel cadaver model of cardiopulmonary resuscitation. *World Journal of Emergency Medicine*, 14(2), 143-147. <https://doi.org/10.5847/wjem.j.1920-8642.2023.029>
4. Berg KM, Bray JE, Ng KC, Liley HG, Greif R, Carlson JN, Morley PT, Drennan IR, Smyth M, Scholefield BR, Weiner GM, Cheng A, Djärv T, Abelairas-Gómez C, Acworth J, **Andersen LW**, Atkins DL, Berry DC, Bhanji F, Bierens J, Bittencourt Couto T, Borra V, Böttiger BW, Bradley RN, Breckwoldt J, Cassan P, Chang WT, Charlton NP, Chung SP, Considine J, Costa-Nobre DT, Couper K, Dainty KN, Dassanayake V, Davis PG, Dawson JA, de Almeida MF, De Caen AR, Deakin CD, Dicker B, Douma MJ, Eastwood K, El-Naggar W, Fabres JG, Fawke J, Fijacko N, Finn JC, Flores GE, Foglia EE, Folke F, Gilfoyle E, Goolsby CA, Granfeldt A, Guerguerian AM, Guinsburg R, Hatanaka T, Hirsch KG, Holmberg MJ, Hosono S, Hsieh MJ, Hsu CH, Ikeyama T, Isayama T, Johnson NJ, Kapadia VS, Kawakami MD, Kim HS, Kleinman ME, Kloeck DA, Kudenchuk P, Kule A, Kurosawa H, Lagina AT, **Lauridsen KG**, Lavonas EJ, Lee HC, Lin Y, Lockey AS, Macneil F, Maconochie IK, Madar RJ, Malta Hansen C, Masterson S, Matsuyama T, McKinlay CJD, Meyran D, Monnelly V, Nadkarni V, Nakwa FL, Nation KJ, Nehme Z, Nemeth M, Neumar RW, Nicholson T, Nikolaou N, Nishiyama C, Norii T, Nuthall GA, Ohshimo S, Olasveengen TM, Ong YG, Orkin AM, Parr MJ, Patocka C, Perkins GD, Perlman JM, Rabi Y, Raitt J, Ramachandran S, Ramaswamy VV, Raymond TT, Reis AG, Reynolds JC, Ristagno G, Rodriguez-Nunez A, Roehr CC, Rüdiger M, Sakamoto T, Sandroni C, Sawyer TL, Schexnayder SM, Schmölzer GM, Schnaubelt S, Semeraro F, Singletary EM, Skrifvars MB, Smith

CM, Soar J, Stassen W, Sugiura T, Tijssen JA, Topjian AA, Trevisanuto D, Vaillancourt C, Wyckoff MH, Wyllie JP, Yang C, Yeung J, Zelop CM, Zideman DA, Nolan JP. 2023 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces. *Circulation*. 2023 Nov 9. doi: 10.1161/CIR.0000000000001179

5. Berg KM, Bray JE, Ng KC, Liley HG, Greif R, Carlson JN, Morley PT, Drennan IR, Smyth M, Scholefield BR, Weiner GM, Cheng A, Djärv T, Abelairas-Gómez C, Acworth J, Andersen LW, Atkins DL, Berry DC, Bhanji F, Bierens J, Bittencourt Couto T, Borra V, Böttiger BW, Bradley RN, Breckwoldt J, Cassan P, Chang WT, Charlton NP, Chung SP, Considine J, Costa-Nobre DT, Couper K, Dainty KN, Dassanayake V, Davis PG, Dawson JA, de Almeida MF, De Caen AR, Deakin CD, Dicker B, Douma MJ, Eastwood K, El-Naggar W, Fabres JG, Fawke J, Fijacko N, Finn JC, Flores GE, Foglia EE, Folke F, Gilfoyle E, Goolsby CA, Granfeldt A, Guerguerian AM, Guinsburg R, Hatanaka T, Hirsch KG, Holmberg MJ, Hosono S, Hsieh MJ, Hsu CH, Ikeyama T, Isayama T, Johnson NJ, Kapadia VS, Kawakami MD, Kim HS, Kleinman ME, Kloeck DA, Kudenchuk P, Kule A, Kurosawa H, Lagina AT, **Lauridsen KG**, Lavonas EJ, Lee HC, Lin Y, Lockey AS, Macneil F, Maconochie IK, Madar RJ, Malta Hansen C, Masterson S, Matsuyama T, McKinlay CJD, Meyran D, Monnelly V, Nadkarni V, Nakwa FL, Nation KJ, Nehme Z, Nemeth M, Neumar RW, Nicholson T, Nikolaou N, Nishiyama C, Norii T, Nuthall GA, Ohshimo S, Olasveengen TM, Ong YG, Orkin AM, Parr MJ, Patocka C, Perkins GD, Perlman JM, Rabi Y, Raitt J, Ramachandran S, Ramaswamy VV, Raymond TT, Reis AG, Reynolds JC, Ristagno G, Rodriguez-Nunez A, Roehr CC, Rüdiger M, Sakamoto T, Sandroni C, Sawyer TL, Schexnayder SM, Schmölzer GM, Schnaubelt S, Semeraro F, Singletary EM, Skrifvars MB, Smith CM, Soar J, Stassen W, Sugiura T, Tijssen JA, Topjian AA, Trevisanuto D, Vaillancourt C, Wyckoff MH, Wyllie JP, Yang C, Yeung J, Zelop CM, Zideman DA, Nolan JP. 2023 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations: Summary From the Basic Life Support; Advanced Life Support; Pediatric Life Support; Neonatal Life Support; Education, Implementation, and Teams; and First Aid Task Forces. *Resuscitation*. 2023 Nov 7:109992. doi: 10.1016/j.resuscitation.2023.109992
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13. **Galili, S. F.**, Nikolajsen, L., Bech, B. H., **Kirkegaard, H.** & Ahrensberg, J. (2024). As-needed opioid dosing for emergency patients with a daily use of opioids. *Acta Anaesthesiologica Scandinavica*, 68(3), 410-416. Article 14351. <https://doi.org/10.1111/aas.14351>
14. **Galili, SF**, Nikolajsen, L. & Papadomanolakis-Pakis, N. (2023). Subanaesthetic single-dose ketamine as an adjunct to opioid analgesics for acute pain management in the emergency department: a systematic review and meta-analysis. *BMJ Open*, 13(3), Article e066444. <https://doi.org/10.1136/bmjopen-2022-066444>
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9. Invited national lectures and presentations

Marianne Lisby

DASEM, Annual Meeting. The professors present. The research Center for Emergency Medicine – an overview. April 2023

AUH Research Symposium. Presentation of the Research Strategy for Aarhus University Hospital and Department of Health, Aarhus University. May 2023

How to establish a research environment in a clinical setting. Children Adolescent Psychiatry in Central Denmark, Aarhus University Hospital, October 2023

Kasper G. Lauridsen

What is the optimal teaching of CPR in a hospital? Resuscitation Users Network Symposium, Vejle, June, 15th, 2023

Bo Løfgren

Cardioverting – new methods. National Arrhythmia Symposium, Copenhagen, September 2023

DC-converting with Midazolam. Danish Cardiologic Association, working group for arrhythmia, online, March 2023

Stig Holm Ovesen

Pre graduate ultrasound scanning, DUDS Annual meeting

Stine Fjendbo Galili

Pain Treatment of the Opioid-accustomed Patient, DCEM10

Sandra Langsted

Pleural Centesis. Danish Ultrasound Festival

Hanne Mainz

Missed Nursing Care in Denmark. National Course for Infection Disease Nurses. May 2023

FoCus – Improving Fundamental Nursing Care. Project Day, Zealand University Hospital. May 2023

Missed Nursing Care in Denmark. FSUIS National Course. Professional Society for nurses interested in urology. September 2023

Missed Nursing Care – When there is lack of nursing, FSSK Conference (Professional Society for nurses in the municipality). September 2023

Gitte Boier Tygesen

Pilot project – enhanced support and counselling for socially endangered patients with a harmful alcohol consumption or –dependence. Aalborg University Hospital. June 2023

Intersectional effort for patients with repeated alcohol related contacts – results from an outgoing and follow-up alcohol counsellor function. Health outside the system, Odense. November 2023

Graphical Abstracts. Sandbjerg Research Symposium 2023, Sandbjerg. September 2023

Johannes Ulrich Wittig

The Impact of Team Leader Experience on Chest Compression Pauses during In-Hospital Cardiac Arrest. Resuscitation User Network Conference. June 2023

The Impact of Team Leader Experience on Chest Compression Pauses during In-Hospital Cardiac Arrest. Part of Aarhus University Hospital delegation for EM professors present Annual Meeting of the Danish Society for Emergency Medicine, Fredericia. April 2023

Sara Viskum Leth

Presentation of master thesis: Patients with repeated acute admissions to somatic departments: Sociodemographic characteristics, disease burden, and contact with primary healthcare sector – A Retrospective Register-Based Case-Control Study. GI. Avernæs. June 2023

Line Bilgrav Nisgaard

Symptom Presentation and Referral Patterns of Acute Ischemic Stroke Patients Referred to Danish Emergency Departments. Stroke Academy, Copenhagen. November 13th, 2023

Nanna Fauerholdt Skov

Harmful and hazardous alcohol consumption in the ED. GI Avernæs. June, 13th 2023

10. Invited international lectures and presentations

Kasper G. Lauridsen

SSH Guidelines on Teamwork and Nontechnical Skills. SSH Research Summit, Orlando, USA January, 2023

Cognitive and social skills in clinical care. Jan 24. IMSH, Orlando, USA January, 2023

How to prepare the best abstract. Young ERC. Online May, 2023

Impact of chest compression pause durations on survival following paediatric in-hospital cardiac arrest. pediRES-Q collaborative. Online June, 2023

Journal club. Sep 28. Young ERC Masterclass. Online September, 2023

First Steps in Resuscitation Science. Young ERC Masterclass. Online November, 2023

When to stop resuscitation. ERC conference. Barcelona, Spain November, 2023

Johannes Ulrich Wittig

Everybody told me to find a mentor. European Emergency Medicine Congress, European Society for Emergency Medicine (EUSEM), Barcelona, Spain September, 2023

Intra-arrest ventilation – The dark side of the moon. European Emergency Medicine Congress, European Society for Emergency Medicine (EUSEM), Barcelona, Spain
September, 2023

Ventilation during cardiac arrest, 14th online emergency medicine continuing education event of the German Red Cross Alpine Rescue Service
September, 2023

Cecilie Langkilde Lauesen

Oral presentation of the abstract *Barriers for Ward Staff to Cardiac Arrest Team Handover – A Prospective Clinical Study* at ERC Congress 2023, Barcelona, Spain
November, 2023

Hanne Mainz

The Impact of a Decision Aid on Patient Treatment Choice after Anterior Cruciate Ligament Injuries. ISAKOS Congress in Boston, USA (Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine)
June, 2023

Prevalence of missed nursing care and its association with work experience in a Danish University Hospital – a survey. Nordic Conference in Nursing Research. Iceland. Reykjavik
October 2023

11. International cooperation

Marianne Lisby

- Professor Helga Bragadóttir, University of Reykjavik, Iceland
- Professor Ingibjörk Hjaltadóttir, University of Reykjavik, Iceland
- Associate professor, Ann-Charlotte Falk, Karolinska University, Sweden
- Dr. Med Carolyn Nymark, Karolinska University, Sweden
- Associate professor, Ann-Christin von Vogelsang, Karolinska University, Sweden
- Associate professor, Katarina Göranson, Dalarna University, Sweden
- Dr. Med., PhD, Lena Berg, Dalarna University, Sweden
- Professor Beate André, Norwegian University of Science and Technology, Norway
- Professor Kjersti Grønning, Norwegian University of Science and Technology, Norway
- Professor Jonathan Drennan, University College, Cork, Ireland
- Professor Julie Considine, Deakin University, Australia
- Professor Kate Curtis, University of Sydney, Australia
- Associate professor, Patricia Dykes, Harvard Medical School & Brigham and Women's Hospital, Boston, MA, USA.
- Professor David W. Bates, Harvard Medical School & Brigham and Women's Hospital, Boston, MA, USA
- Assistant professor Ronen Rozenblum, Harvard Medical School & Brigham and Women's Hospital, Boston, MA, USA
- Associate professor, Daniele Marcia, LUISS Business School, Rome, Italy
- Associate professor, Fausto Di Vincenzo, University of Pescara, Abruzzo, Italy
- Danish collaborators: Karen V. Andersen and Hanne Mainz, RECEM

Hans Kirkegaard

- Eldar Søreide, Professor, MD, PhD, FERC, Department of Anesthesiology and Intensive Care and Alf
- Inge Larsen, Professor, MD, PhD, FESC; Department of Cardiology, Stavanger University Hospital, Stavanger, Norway and Department of Clinical Medicine, University of Bergen, Bergen, Norway
- Fabio Silvio Taccone, Professor, MD, PhD; Department of Intensive Care, Erasme Hospital, Université Libre de Bruxelles (ULB), Brussels, Belgium
- Valdo Toome, MD; Department of Intensive Cardiac Care, North Estonia Medical Centre, Tallinn, Estonia
- Christian Storm, MD, PhD; Department of Internal Medicine, Nephrology and Intensive Care, Charité-Universitätsmedizin Berlin, Berlin, Germany
- Timo Laitio, MD, PhD; Department of Anesthesiology and Intensive Care, Turku University Hospital and University of Turku, Finland
- Markus B Skrifvars, Associated professor, MD, PhD, EDIC, FCICM; Division of Intensive Care, Department of Anesthesiology and Intensive Care Medicine, Helsinki University Hospital and University of Helsinki, Finland, and Australian and New Zealand Intensive Care Research Centre, School of Public Health and Preventive Medicine, Monash University Melbourne, Australia
- Nathan Shapiro Ass. Professor, MD Emergency Department, Beth Israel Deaconess Medical Center, Longwood, Boston, USA
- Michael Donnino, Ass. Professor MD, Emergency Department, Beth Israel Deaconess Medical Center, Longwood, Boston, USA
- Bo Madsen, Associated professor, MD, Emergency Department, Mayo Clinic, Rochester, Minnesota, USA

- Jeff Keep, MD, FRCER Consultant & Honorary Senior Lecturer in Emergency Medicine & Major Trauma Lead for Research & Clinical Governance King's College Hospital, London, United Kingdom
- Philip Andersson, Adjunct professor, MD, Emergency Department, Brigham & Womens Hospital, Boston, MA, USA.
- Dr. Ben Bloom Consultant Emergency Medicine, Barts Health NHS Trust Royal London Hospital, United Kingdom

Kasper Glerup Lauridsen

- Professor, Adam Cheng, University of Calgary, Canada
- Professor, Therese Djärv, Karolinska Institutet, Sweden.
- Professor, Robert Greif, Inselshospital Bern
- Professor, Vinay Nadkarni, University of Pennsylvania, USA
- Professor Akira Nishisaki, Professor Robert Sutton, University of Pennsylvania & Children's Hospital of Philadelphia, USA
- Professor, John T. Paige, Louisiana State University, USA
- Professor, Sune D. Müller, Oslo University, Norway

Johannes Ulrich Wittig

- MD, Simon Orlob, Medical University of Graz, Austria

Stig Holm Ovesen

- Professor Irene Ma, Division of General Internal Medicine, Cumming School of Medicine, University of Calgary, Canada

Peter Jennings

- Adjunct Professor, Therese Djärv, Karolinska University Hospital, Sweden

Nanna Fauersholdt Skov

- Professor, Katarina Göransson, Darlarna University, Sweden

Camilla Ulsøe

- MD, Nathasja Van Leeuwen, St. Joseph Hospital Kagondo, Tanzania

12. Poster presentations

Ovesen SH, Clausen AH, **Kirkegaard H**, **Løfgren B**, Aagaard R, Skaarup S, Arvig MD, Lorentzen MH, Kristensen AH, Cartuliales MB, Falster C, Tong Liting, Rabajoli A, Leth R, Desy J, MA IWY, **Weile JB** *Point-of-care focused lung ultrasound in emergency medicine: A scoping review with an interactive database.* Yngre forsker konkurrence, DUDS årsmøde 2023

Lauridsen KG, Naveendran E, Pedersen BB, **Løfgren B**, *Characterization of Pediatric In-hospital Cardiac Arrest in Denmark.* American Heart Association Resuscitation Science Symposium 2023. Philadelphia, USA

Lauesen CL, **Riis DN**, Krogh K, Müller SD, Nadkarni VM, **Løfgren B**, **Lauridsen KG**. *Barriers for Handover of Information from Ward Staff to the Cardiac Arrest Team during In-hospital Resuscitation – A Prospective Clinical Study.* European Resuscitation Council Conference 2023. Barcelona, Spain

Riis DN, Wittig J, Nielsen RP, Højbjerg R, Krogh K, Løfgren B, Lauridsen KG. *Cardiopulmonary Resuscitation Quality during Basic- vs. Advanced Life Support during In-hospital Cardiac Arrest.* European Resuscitation Council Conference 2023. Barcelona, Spain

Wittig J, Løfgren B, Nielsen RP, Højbjerg R, Kirkegaard H, Lauridsen KG. *The Impact of Team Leader Experience on Chest Compression Pauses during In-Hospital Cardiac Arrest.* European Resuscitation Council Conference 2023. Barcelona, Spain

Wittig J, Løfgren B, Nielsen RP, Højbjerg R, Kirkegaard H, Lauridsen KG. *The Impact of Recent Team Leader Training on Chest Compression Pauses during In-Hospital Cardiac Arrest.* European Resuscitation Council Conference 2023. Barcelona, Spain

Meilandt C, Qvortrup M, **Løfgren B, Bøtker MT, Lauridsen KG.** *Defibrillation using ZOLL vs Lifepak and survival following out-of-hospital cardiac arrest: a cohort study.* London Trauma Conference 2023, UK

Riis DN, Wittig J, Nielsen RP, Højbjerg R, Krogh K, Løfgren B, Lauridsen KG *Cardiopulmonary Resuscitation Quality during Basic- vs. Advanced Life Support during In-hospital Cardiac Arrest,* European Resuscitation Council Congress 2023. Barcelona, Spain

Pedersen LM, **Tygesen GB, Sixtus C.** *Nurses' experiences of barriers and enablers in the use of PEWS,* DEMC10 2023, Copenhagen, Denmark

Gregersen M, **Andersen KV, Lisby M, Tei RMH, Mainz H.** *Prevalence of Missed Nursing Care at a University Hospital – a Survey.* 2023. Abstract from The 19th EuGMS Congress, Helsinki, Finland

Mainz H, Tei RMH, Andersen KV, Lisby M, Gregersen M. *Prevalence of missed nursing care and its association with work experience in a Danish University Hospital: – a survey.* 2023. Abstract from 5th Nordic Conference in Nursing Research, Reykjavik, Iceland

Lisby M, Ørts LB, Skov NF, Andersen KV. 2023. *Emergency department expectations: what matters most?* Abstract from the 4th Global Conference on Emergency Nursing and Trauma care. Gothenburg, Sweden

13. Review committee assessments

Marianne Lisby

- Opponent of the PhD dissertation for Mariana Bichuette Cartulieres, Diagnosis and treatment of acutely hospitalized patients with suspected community-acquired pneumonia – clinical and microbiological perspectives. November, 29th, 2023
- Chairman of Assessment Committee for Lisa Fønns Rasmussen's PhD Dissertation, Transitional care and reasons for unplanned readmission in older medical patients. November, 17th, 2023
- Assessment Committee, Research applications, Cross Tracks Cohort, Central Denmark Region
- Appointed member of Research committee for the conference "International Forum for Quality and Safety", 2023. Assessment of abstract for the Science Symposium

Bo Løfgren

- Assessment committee member for two associate professors in Emergency Medicine, The Region of Southern Denmark

Hanne Mainz

- Appointed member of the advisory board (Fagligt Råd) of the Danish Clinical Quality Program, National Clinical Registries (RKKP). Review of the existing Clinical Registers and future registers

14. Grants and funding

Awarded researchers listed by rewarding funds (only main applicants)

Aarhus University Research Foundation (AUFF)

Kasper G. Lauridsen (DKK 2,460,000)

Riisfort Foundation

Kasper G. Lauridsen (DKK 326,240)

Jesper Bo Weile (DKK 211,858)

Central Denmark Region

Sara Viskum Leth, PhD (DKK 500,000)

Line Bilgrav Nisgaard, pre-PhD (DKK 100,000)

Nanna Fauerholdt Skov, pre-PhD (DKK 100,000)

Johan Schrøders Foundation, POCUS PATHWAY-study

Stig Holm Ovesen (DKK 200,000)

Frimodt-Heineke Foundation, POCUS PATHWAY-study

Stig Holm Ovesen (DKK 40,000)

Jascha Foundation

Sara Viskum Leth (DKK 200,000)

Regional Hospital Randers, "Spiremidler"

Johannes Wittig Ulrich (DKK 19,976)

Dung N. Riis (DKK 19,843)

Region Hospital Randers

Peter Jennings (DKK 15,000)

TWS

Peter Jennings (DKK 13,000)

ZOLL Foundation

Cecilie Langkilde Lauesen (DKK 190,000)

Dung N. Riis (DKK 71,056)

Peter Jennings (DKK 59,500)

Novo Nordisk Foundation & The Danish Heart Foundation

Dung N. Riis (DKK 7,500)

A.P. Møller Foundation

Stine Fjendbo Galili (DKK 50,000)

Aarhus University Scholarship Research Year

Philip Uhd Wendt Nielsen (DKK 120,000)

Familie Hede Nielsen Foundation

Philip Uhd Wendt Nielsen (DKK 10,000)

Eva Merete Falck Crones Fond

Sandra Langsted (DKK 20,000)

15. Awards

American Heart Association Fellowship (FAHA)

Kasper G. Lauridsen