Dr. Ardavan Khoshnood, MD PhD Associate Professor

Postal address: Clinical Research Centre, CRC 91-12, Box 50332, 202 13

Malmö, Sweden

Email: ardavan.khoshnood@med.lu.se

Phone: +4640331854 Mobile: +46735853979

Web address: http://www.ardavan.se



# Research

#### Medicine

I hold the position of Associate Professor in Emergency Medicine at Lund University, where I have earned a PhD in clinical medicine with a specialization in Emergency Medicine. From 2018 to 2021, I conducted my Postdoctoral research at The Centre for Primary Health Care Research, Lund University. Currently, I serve as a Senior Editorial Member for BMC Emergency Medicine and as an Editorial Board Member for the European Journal of Emergency Medicine. Previously, from 2020 to 2022, I held the role of Academic Editor for the journal Medicine.

My research interests revolve around the following areas within medicine:

Prehospital care

Oxygen therapy in acute myocardial infarction

Trauma

Violent crime trauma

Criminality, psychiatric ill-health, and immigration

## Criminology and Police Work

I have obtained an advanced degree in Criminology from Malmö University and currently hold a position as a guest lecturer at the Police School in Malmö. I have also an advanced degree in Police Work from Umeå University. Additionally, I serve as an Editorial Board Member for the Journal of Investigative Psychology and Offender Profiling. My research interests in criminology encompass the following areas:

Violent crimes

Gang criminality

Offender profiling

Criminal intelligence

## Political Science and Intelligence Analysis

I hold a degree in Intelligence Analysis from Lund University and an advanced degree in Political Science from Malmö University. Previously, I also served as an Editorial Board Member for the journal Global Security and Intelligence Studies . From 2020 to 2023, I held the position of Non-Resident Associate at the Begin-Sadat Center for Strategic Studies. My research interests in Political Science and Intelligence Analysis are as follows:

Intelligence analysis and intelligence failure

Espionage and counter-espionage

Foreign intelligence

Foreign policy of the Islamic Republic of Iran

The Islamic Revolutionary Guard Corps

The Islamic Republic of Iran's Ministry of Intelligence

# Qualifications

2022 Sept 1 → ... Senior Lecturer in Emergency Medicine

2018 Oct 1  $\rightarrow$  2021 Oct 1 Postdoctoral researcher, Center for Primary Health Care Research, Lund University, Lund, Sweden

2019 Dec 3 → 2021 Aug 31 Course Coordinator, Coordinator for the Emergency Medicine course, Medical School, Semester 11, Lund University, Lund, Sweden

Emergency Medicine, Associate Professor, Lund University, Faculty of Medicine

Award Date: 2020 Apr 8

2020 Feb 13 → ... Lecturer, Police School, Malmö University, Malmö, Sweden

Political Science, Master of Arts (60 ECT), Malmö University: Department of Global Political Studies

 $2016 \rightarrow 2018$ 

Award Date: 2018 Apr 26

Medical Sciences, Doctor of Philosophy, Prehospital Diagnosis and Oxygen Treatment in ST Elevation Myocardial Infarction, Lund University, Faculty of Medicine, Department of Clinical Sciences Lund, Emergency Medicine

 $2014 \rightarrow 2017$ 

Award Date: 2017 Nov 3

 $2017 \rightarrow 2023 \ Lecturer, \ International \ Master's \ Program \ in \ Criminology, \ Malm\"{o} \ University, \ Malm\"{o}, \ Sweden$ 

Intelligence Analysis, Bachelor of Science (180 ECT), Lund University: Department of Political Science

2006 → 2015

Award Date: 2015 Aug 14

Criminology, Master of Science (120 ECT), Malmö University: Department of Criminology, Faculty of Health and Society

 $2012 \rightarrow 2014$ 

Award Date: 2014 Jul 9

Medicine, Medical Degree (330 ECT), Lund University, Faculty of Medicine

 $2003 \rightarrow 2011$ 

Award Date: 2011 Sept 30

# **Employment**

## Specialist physician, Senior lecturer

Cardiovascular Research - Hypertension Lund University Malmö, Sweden 2022 Sept 1 → present

## Associate professor, Supervisor, Specialist physician

Medicine/Emergency Medicine, Lund Lund University Lund, Sweden 2014 Sept 1 → present

## **Medical Director**

MACC People AB Arlöv, Sweden 2018 Oct 29 → present

# **Prizes and Distinctions**

# Grant

Khoshnood, A. (Recipient), 2024 Apr 17

# Top-Grade Peer Review Recognition by Annals of Internal Medicine

Khoshnood, A. (Recipient), 2024 Mar 17

# Grant

Khoshnood, A. (Recipient), 2023 Nov 17

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Lingman, M. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2023 Oct 27

## Grant

Khoshnood, A. (Recipient), 2022 Dec 22

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient), Lingman, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2022 Dec 1

#### Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Björk, J. (Recipient), Ekelund, U. (Recipient), Ohlsson, M. (Recipient), Lingman, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2022 Oct 19

## Senior Consultant/Chief Physician

Khoshnood, A. (Recipient), 2022 Sept 1

## Senior Lecturer

Khoshnood, A. (Recipient), 2022 Sept 1

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Lingman, M. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2022 Mar 31

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Lingman, M. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2021 Dec 6

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Lingman, M. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2021 Oct 21

## Grant

Khoshnood, A. (Recipient), 2021 May 26

## Grant

Khoshnood, A. (Recipient), 2021 Jan 1

## Grant

Khoshnood, A. (Recipient), 2020 Oct 28

## Grant

Tolestam Heyman, E. (Recipient), Khoshnood, A. (Recipient), Lingman, M. (Recipient), Ekelund, U. (Recipient), Björk, J. (Recipient), Ohlsson, M. (Recipient) & Dahlén Holmqvist, L. (Recipient), 2020 Oct 21

# **Associate Professor**

Khoshnood, A. (Recipient), 2020 Apr 8

## **Global Peer Review Awards**

Khoshnood, A. (Recipient), 2019 Sept

## **Global Peer Review Awards**

Khoshnood, A. (Recipient), 2019 Sept

## **Outstanding Contribution Award**

Khoshnood, A. (Recipient), 2019

## **Outstanding Contribution in Reviewing**

Khoshnood, A. (Recipient), 2018 Sept 4

## **Outstanding Contribution in Reviewing**

Khoshnood, A. (Recipient), 2018 Sept

## **Best Scientific Presentation**

Khoshnood, A. (Recipient), 2016 Mar 17

## Nomination for the Article of the Year

Khoshnood, A. (Recipient), 2016

## **Best Scientific Presentation**

Khoshnood, A. (Recipient), 2015 Mar 19

## **Best Scientific Presentation**

Khoshnood, A. (Recipient), 2011 Oct 20

#### Grant

Khoshnood, A. (Recipient), 2008

#### Grant

Khoshnood, A. (Recipient), 2007

## Grant

Khoshnood, A. (Recipient), 2006

# **Projects**

# ESC-TROP2: Effectiveness and Safety of a Clinical assessment and 0h/1h Troponin Rule-Out Protocol 2

Ekelund, U. (PI), Medicine/Emergency Medicine, Lund

Lundager Forberg, J. (Researcher), Emergency medicine, Medicine/Emergency Medicine, Lund, Teachers at the Medical

Programme, Clinical Sciences, Helsingborg

Khoshnood, A. (Researcher), Emergency medicine

Mokhtari, A. (Researcher), Cardiology

2020/09/02 → ...

Free keywords Cardiology, Emergency Medicine, Troponin, Myocardial Infarction

Sustainable

Development Goals

SDG 3 - Good Health and Well-being

(SDG)

# Prehospital Triage and its Relation to Diverse Intra-Hsopital Data

This study investigates the relationship between prehospital triage using the Rapid Emergency Triage and Treatment System for Adults (RETTS-A) and patient outcomes in Region Skåne, Sweden. By analyzing data from adult patients transported by ambulance to emergency departments over one year, the study aims to assess the accuracy of initial triage codes in predicting final diagnoses, interventions, and outcomes such as mortality and length of hospital stay. Findings may have implications for improving prehospital triage accuracy across Sweden.

Khoshnood, A. (PI), Emergency medicine

Keeling, R. (Researcher), Ystad Hospital

 $2022/11/27 \rightarrow ...$ 

Free keywords Prehospital triage, RETTS-A, Emergency medical services, emergency medicine, Ambulance

assessment, Triage accuracy

Sustainable

**Development Goals** 

(SDG)

SDG 3 - Good Health and Well-being

# The Intelligence Apparatus of the Islamic Republic of Iran

This research project aims to comprehensively map the intelligence and security organizations of the Islamic Republic of Iran, analyzing their organizational structures, activities, operations, and key functions. The findings will contribute to a series of scholarly publications, including research articles and policy reports, with the potential for further in-depth studies.

Khoshnood, A. (Researcher), Emergency medicine

Khoshnood, A. (Researcher)

 $2021/01/01 \rightarrow ...$ 

Free keywords Iran, Islamic Republic of Iran, VAJA, IRGC, Islamic Revolutionary Guard Corps, Ministry of

Intelligence, Terrorism, Espionage

Sustainable

**Development Goals** 

(SDG)

SDG 16 - Peace, Justice and Strong Institutions

Nature of activity type 
Individual research project

## CATSOS: Crimes Against the Security of Sweden

Sweden faces a series of challenges concerning its national security. These challenges range from espionage activities conducted by foreign powers such as Russia, China, and Iran, to domestic violent extremism associated with both rightwing and left-wing extremist groups, as well as Islamist movements. These threats can have significant repercussions for the country, not only in the form of direct attacks but also through economic losses and damaged relationships with other nations.

However, another growing concern is the dramatic increase in violent crimes, particularly shootings, which have become increasingly linked to criminal gangs. What is particularly concerning is the possibility that foreign powers may attempt to collaborate with these gangs to carry out attacks within Sweden's borders, with the gangs acting as tools or intermediaries. This fear is exacerbated by events in other countries. For instance, in the Netherlands, domestic criminal gangs have collaborated with foreign governments to carry out murders.

Despite the clear presence of these security threats and awareness of them among Swedish authorities, there is a noticeable lack of research on who is actually behind crimes against Sweden's security and acts of terrorism. This research gap becomes even more concerning in light of the changing security conditions in Europe, especially considering events such as Russia's invasion of Ukraine.

In conclusion, it is of utmost importance that Sweden takes these threats very seriously. Not only should the country proactively take measures to counteract them, but it should also invest in research and analysis to better understand and manage them. The future, security, and well-being of the nation depend on this balance.

The project focuses on individuals convicted of crimes against Sweden's security. The aim is to map and analyze this type of criminality in Sweden, starting from the fall of the Soviet Union up to the end of 2024. The goal is to describe individual characteristics and crime characteristics on a micro-level. This would generate a general picture and overview of the individuals involved in these crimes. Furthermore, we intend to examine the crimes themselves, with a focus on modus operandi and motives, to shed light on how the perpetrators operate and what drives them. Finally, we also aim to study the evidence accepted by the courts and the resulting penalties. The results of the project will not only contribute to preventive efforts concerning crimes against Sweden's security but can also be used as a tool in ongoing investigations and to develop legislation.

Khoshnood, A. (PI), Emergency medicine Petterson, T. (Researcher), Department of Political Science Khoshnood, A. (Researcher), Department of Human Geography Beckman, O. (Researcher), Human Rights Studies 2024/01/12 → ...

Security, Espionage, Terrorism, CounterIntelligence, Counter Espionage, Counter Terrorism, Free keywords

Sweden, Intelligence

Sustainable

**Development Goals** 

(SDG)

SDG 16 - Peace, Justice and Strong Institutions, SDG 3 - Good Health and Well-being

Nature of activity type Interdisciplinary research

# A forensic epidemiological approach to stab injuries to the trunk

The project aims to increase the knowledge of injury panorama and the degree of severity of injuries regarding sharp violence to the torso in order to increase the scientific basis behind forensic assessments regarding crime victims and suspected perpetrators as well as in autopsy cases.

Wingren, C. J. (PI), Forensic Medicine, EpiHealth: Epidemiology for Health

Acosta, S. (Supervisor), Vascular Diseases - Clinical Research

Khoshnood, A. (Supervisor), Emergency medicine Berg von Linde, M. (Researcher), Forensic Medicine

2022/08/01 → ...

Free keywords Thorax, Forensic Medicine

Nature of activity type 
Internal collaboration (LU)

## Medical Intelligence

This project, commissioned by the Swedish Armed Forces, aims to study the field of Medical Intelligence in three reports.

Khoshnood, A. (Researcher), Emergency medicine

Petterson, T. (Researcher), Department of Political Science

2021/12/01 → ...

Free keywords Medical Intelligence, MEDINT

Nature of activity type Interdisciplinary research

Collaborators Swedish Armed Forces

## Resource Management in the Emergency Department by using Machine Learning

The aim of the PhD project is to design a decision support tool based on advanced statistical methods, machine learning/artificial intelligence (AI) and registered health care data in order to optimize emergency department care.

In a present project, an Al based clinical decision support for diagnosing adults with breathing difficulties in the emergency department is being modelled.

The PhD project is part of the research project AIR Lund (Artificially Intelligent use of Registers), a collaboration between Lund University, Halmstad University, Region Halland and Region Skåne. Funded by Region Halland's Scientific Advisory Board and Sparbanksstiftelsen.

Tolestam Heyman, E. (Research student), Medicine/Emergency Medicine, Lund

Khoshnood, A. (Supervisor), Emergency medicine

Ekelund, U. (Assistant supervisor), Medicine/Emergency Medicine, Lund

Björk, J. (Assistant supervisor), EPI@BIO, Surgery and public health, eSSENCE: The e-Science Collaboration, Centre for Economic Demography, Division of Occupational and Environmental Medicine, Lund University, EpiHealth: Epidemiology for Health

Ohlsson, M. (Assistant supervisor), eSSENCE: The e-Science Collaboration, Artificial Intelligence in CardioThoracic Sciences (AICTS)

Lingman, M. (Assistant supervisor), Region Halland, Sahlgrenska Academy

Dahlén Holmqvist, L. (Assistant supervisor), Sahlgrenska Academy, Sahlgrenska University Hospital  $2021/02/01 \rightarrow 2024/11/21$ 

Artificial Intelligence, Machine Learning, Emergency Medicine, Emergency Care, Emergency Free keywords

Department

Sustainable

**Development Goals** 

SDG 3 - Good Health and Well-being

(SDG)

Nature of activity type

Clinical research, Interdisciplinary research, Collaboration with municipalities and county councils,

Internal collaboration (LU)

## ViCS: Violent Crimes in Skåne

The primary objective of this project is to map violent crimes in Skåne with respect to the victim. Several questions are of importance to this project, which can be divided into medical and criminological questions. The focus of the project will be (1) assault with kicks and blows, (2) assault with a weapon not being deemed to be knife/sharp weapon or firearm, (3) violent crimes committed with a knife/sharp weapon, (3) violent crimes committed with a firearm.

Khoshnood, A. (PI), Emergency medicine

Ekelund, U. (Assistant supervisor), Emergency medicine Wingren, C. J. (Assistant supervisor), Forensic Medicine Ringqvist, A. (Researcher), Emergency medicine

2021/01/01 → ...

Violence, Violent Crimes, Injury Panorama, Cause of Death, Battery, Firearm-related Violence,

Free keywords Penetrating Injuries, Knife, Sharp Weapon, Emergency Medicine, Trauma, Victimology,

Criminology

Sustainable

**Development Goals** 

SDG 3 - Good Health and Well-being, SDG 5 - Gender Equality, SDG 16 - Peace, Justice and

Strong Institutions (SDG)

Nature of activity type Clinical research

Collaborators Region Skåne, Skåne University Hospital

## Children at risk - ASG, Pufendorf IAS

Why can't we find children at risk in time? Many professions who work with both children and adults, such as teachers, doctors, social workers and nurses, are obligated to report if they suspect a child is at risk. Despite this, severe abuse of children is many times only discovered after the child is killed by its parents or after a long time of neglect.

This Advanced Study Group will begin by speaking with professionals from different areas of contact with at risk children in order to raise the question, and also discuss what it means to be a child "at risk".

Kristensson Ekwall, A. (Researcher)

Khoshnood, A. (Researcher), Emergency medicine

Ekstrand Ragnar, M. (Researcher), Midwifery research - reproductive, perinatal and sexual health

Klingberg, G. (Researcher), Malmö University

Laurell, L. (Researcher), Paediatrics (Lund)

Mattsson, T. (Researcher), Department of Law

Ponnert, L. (Researcher), School of Social Work

Priebe, G. (Researcher), Department of Psychology

Ridell, K. (Researcher), Malmö University

**Diary Number** ASG 2020-2021

2020/01/01 → 2020/12/31

Free keywords Children, Child, Risk

Nature of activity type National collaboration, Interdisciplinary research

Collaborators Malmö University

## Violent Crimes in Sweden

The aim of the project is to study violent crimes in Sweden and identify offender characteristics.

Khoshnood, A. (Researcher), Emergency medicine

Sundquist, K. (Researcher), Family Medicine and Clinical Epidemiology, EpiHealth: Epidemiology for Health Sundquist, J. (Researcher), Family Medicine and Clinical Epidemiology, EpiHealth: Epidemiology for Health Ohlsson, H. (Researcher), Family Medicine and Clinical Epidemiology

2018/10/01 → ...

Free keywords Violence, Violent crimes, Sweden, Deadly Violence, Rape, Firearm-realted Violence

Sustainable

**Development Goals** 

(SDG)

SDG 16 - Peace, Justice and Strong Institutions

## AIR Lund: AIR Lund - Artificially Intelligent use of Registers

The demographic transition of society and new technology contribute to exponential accumulation of micro-data in healthcare registers. Novel usage of artificially intelligent decision aids, applied on the Swedish register infrastructure, holds promises for improved quality and efficiency of healthcare. Focussing on cardiometabolic diseases, AIR Lund will critically assess the added value of machine learning compared to standard statistical approaches for predictions and decision aids in three specific settings:

- 1) prevention, where we hope to identify new groups of hidden high-risk individuals and new sets of modifiable risk factors
- 2) diagnosis, where we in emergency care hope to improve general risk assessment and diagnosis of acute coronary disease
- 3) prognosis, where we hope to improve long-term predictions and identify new risk patterns that forego adverse patient outcomes and high healthcare needs

AIR Lund will also analyse central ethical and legal dilemmas related to the use of AI and machine learning in clinical practice, and build on these results in our methodological work on fairness and transparency of AI tools.

AIR Lund represents a unique research environment at five different faculties at Lund University that collaborate closely with applied intelligent systems research at Halmstad University. We expect to bring substantial interdisciplinary novelty into register-based research, and at the same time to open up the Swedish register infrastructure to AI research. Björk, J. (Researcher), Surgery and public health, eSSENCE: The e-Science Collaboration, Centre for Economic

Demography, Division of Occupational and Environmental Medicine, Lund University, EpiHealth: Epidemiology for Health, LU Profile Area: Nature-based future solutions, Environmental Epidemiology

Ohlsson, M. (Researcher), eSSENCE: The e-Science Collaboration, Artificial Intelligence in CardioThoracic Sciences (AICTS)

Melander, O. (Researcher), EXODIAB: Excellence of Diabetes Research in Sweden, EpiHealth: Epidemiology for Health, Cardiovascular Research - Hypertension

Ekelund, U. (Researcher), Medicine/Emergency Medicine, Lund

Larsson, S. (Researcher), Department of Technology and Society, Al and Society, Real Estate Science

Mattsson, T. (Researcher), Department of Law

Mokhtari, A. (Researcher), Medicine/Emergency Medicine, Lund

de Vries, K. (Researcher), Sociology of Law Department

Nilsson, A. (Researcher), Environmental Epidemiology, Centre for Economic Demography

Lingman, M. (Researcher), Region Halland

Pashami, S. (Researcher), Region Halland

Ottosson, F. (Researcher), Cardiovascular Research - Hypertension, EXODIAB: Excellence of Diabetes Research in Sweden

Larsson, A. E. (Administrator), Work-related musculoskeletal disorders, Division of Occupational and Environmental Medicine, Lund University

Henriksen, A. (Researcher), Department of Technology and Society

Högberg, C. (Research student), Department of Technology and Society, Al and Society, Real Estate Science, Division of ALM, Digital Cultures and Publishing Studies, Libraries of the Joint Faculties of Humanities and Theology

Olsson, M. (Research student), Breathlessness and chronic respiratory failure, Respiratory Medicine, Allergology, and Palliative Medicine

Nyström, A. (Research student), EPI@BIO, Division of Occupational and Environmental Medicine, Lund University Olsson de Capretz, P. (Research student), Medicine/Emergency Medicine, Lund Björkelund, A. (Researcher)

Nilsson, A. (Researcher), EPI@BIO, EpiHealth: Epidemiology for Health, Centre for Economic Demography Åkesson, A. (Research student), EPI@BIO, Division of Occupational and Environmental Medicine, Lund University Nordberg, A. (Researcher), Department of Law

Ekström, M. (Researcher), Breathlessness and chronic respiratory failure, EpiHealth: Epidemiology for Health,

Respiratory Medicine, Allergology, and Palliative Medicine

Tolestam Heyman, E. (Research student), Medicine/Emergency Medicine, Lund

Lundager Forberg, J. (Researcher), Clinical Sciences, Helsingborg

Berg, J. (Research student), Emergency medicine

Johansson, A. (Research student)

Amirahmadi, A. (Research student), Halmstad University

Eriksson, T. (Research student), EPI@BIO

Khoshnood, A. (Researcher), Emergency medicine

Mäkinen, M. (Research student), Health Law, Department of Law

Holmberg, P. (Researcher), Health Law, Department of Law

Nilsson, T. N. (Research student), Medicine/Emergency Medicine, Lund, Emergency medicine

2018/07/01 → 2025/12/31

Nature of activity type 
Interdisciplinary research, Clinical research

# SOCCER: Prehospital Oxygen Treatment in ST Elevation Myocardial Infarction: The Supplemental Oxygen in Catheterized Coronary Emergency Reperfusion (SOCCER) Study

Studies suggest that O2 therapy may be harmful in STEMI patients. The SOCCER project aim to evaluate the effects of O2 therapy in STEMI patients.

Khoshnood, A. (Researcher), Medicine/Emergency Medicine, Lund

Ekelund, U. (PI), Experimental Vascular Research, Medicine/Emergency Medicine, Lund

Carlsson, M. (Assistant supervisor), Lund Cardiac MR Group, Clinical Physiology (Lund)

Lundager Forberg, J. (Assistant supervisor), Clinical Sciences, Helsingborg

2014/11/04 → 2018/02/13

Free keywords STEMI, ST Elevation Myocardial Infarction, Oxygen, Oxygen Therapy

Sustainable

**Development Goals** 

SDG 3 - Good Health and Well-being

(SDG)