

## **Press release**

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## **Basic information**

Name: Troels Munch Email: troels.munch@clin.gu.dk Phone: +4526159962

Department of: Clinical Medicine

Main supervisor: Henrik Toft Sørensen

Title of dissertation: Use of opioids prior to hospital admission among the nonsurgical critically ill - Studies on risk and prognosis

Date for defence: 20 December at (time of day): 13:00 Place: In the auditorium at Department of Clinical Epidemiology, Olof Palmes Allé 43-45, 8200 Aarhus, Denmark

Press release (Danish)

Brug af opioider forud for hospitalsindlæggelse er forbundet med dårligere prognose og større risiko for at udvikle kritisk sygdom

Brug af opioider forud for hospitalsindlæggelse blandt ikke-kirurgisk kritisk syge patienter - Studier af risiko og prognose. Et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Troels Munch, der forsvarer det d. 20/12/2018

Morfin-lignende præparater, såkaldte opioider, er hyppigt anvendt smertestillende medicin som anvendes både til akutte, men også kroniske smerter. Opioider er kendt for at være afhængighedsskabende, men har derudover en række andre bivirkninger, herunder påvirkning af bevidsthed, vejrtrækning, og mavetarmsystemet. Der er desuden flere indikationer på at opioider har en påvirkning på det hormonelle system, immunforsvaret, og det kardiovaskulære system. Alle disse bivirkninger kan potentielt set øge risikoen for at udvikle kritisk sygdom samt forværre prognose i forbindelse med kritisk sygdom. Vi har derfor udført to studier af indflydelsen af forbrug af receptopioider forud for hospitaltsindlæggelse på prognosen af henholdsvis intensiv indlæggelse af ikkekirurgisk årsag og blodprop i hjertet. Vi har desuden udført et studie på risikoen for at udvikle indlæggelseskrævende lungebetændelse og efterfølgende intensiv indlæggelse. Vi har vist at opioidbrugere generelt har en dårligere prognose efter kritisk sygdom samt en højere risiko for at udvikle lungebetændelse umiddelbart efter at være startet opioid-behandling.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 20/12/2018 kl. 13 i Klinisk Epidemiologisk Afdelings auditorium, Aarhus Universitet, Olof Palmes Allé 43-45, 8200 Aarhus. Titlen på projektet er "Use of opioids prior to hospital admission among the nonsurgical critically ill - Studies on risk and prognosis". Yderligere oplysninger: Ph.d.-studerende Troels Munch, e-mail: troels.munch@clin.au.dk, tlf. 26159962.

Bedømmelsesudvalg: Chairman: Lone Nikolajsen, Professor of anesthesiology Department of Anaesthesiology and Intensive Care, Aarhus University Hospital Members Sigrid K. Brækkan, Associate Professor K.G. Jebsen –Thrombosis Research and Expertise Center (TREC), Department of Clinical Medicine, University of Tromsø, The Arctic University of Norway Ian Douglas Associate Professor Faculty of Epidemiology and Population Health, Department of Non-communicable Disease Epidemiology, London School of Hygiene and Tropical Medicine

## Press release (English)

Use of opioids prior to hospital admission is associated with poor prognosis and increased risk of critical illness.



Use of opioids prior to hospital admission among the nonsurgical critically ill - studies on risk and prognosis: The project was carried out by Troels Munch, who is defending her/his dissertation on 20/12/2018.

Morphine-like compounds, so-called opioids, are frequently used pain medication in the treatment of both acute and chronic pain. Opioids are known to be addictive. Additional side-effects on the cerebral, respiratory, and gastric system are also well-established. Recent evidence has indicated that opioids may also exert an effect on the hormonal, the immune, and the cardiovascular system. These side-effects could potentially increase risk of developing critical illness as well as lead to a poorer prognosis. We have thus conducted two studies of the impact of use of prescription-opioids prior to hospital admission on the prognosis following admission to an intensive-care unit and following myocardial infarction. Additionally we have conducted a study of risk of developing pneumonia requiring hospital-admission following initiation of prescription-opioid use. We have shown that preadmission prescription-opioid users generally suffered a poorer prognosis following critical illness as well as were at an increased risk of developing pneumonia requiring hospitaladmission.

The defence is public and takes place on 20/12/2018 at Department Of Clinical Epidemiology in the auditorium, Aarhus University, Olof Palmes Allé 43-45, Aarhus. The title of the project is "Use of opioids prior to hospital admission among the nonsurgical critically ill - Studies on risk and prognosis". For more information, please contact PhD student Troels Munch, email: troels.munch@clin.au.dk, Phone +45 26159962

Assessment committee: Chairman: Lone Nikolajsen, Professor of anesthesiology Department of Anaesthesiology and Intensive Care, Aarhus University Hospital Members Sigrid K. Brækkan, Associate Professor K.G. Jebsen –Thrombosis Research and Expertise Center (TREC), Department of Clinical Medicine, University of Tromsø, The Arctic University of Norway Ian Douglas Associate Professor Faculty of Epidemiology and Population Health, Department of Non-communicable Disease Epidemiology, London School of Hygiene and Tropical Medicine

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