

## Press release

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### Basic information

Name: Dorthe Viemose Nielsen

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Department of: Clinical Medicine

Main supervisor: Vibeke E. Hjortdal

Title of dissertation: Perioperative care of the cardiac surgical patient; The Anesthetist' perspective

Date for defence: 16<sup>th</sup> of June 2017 at (time of day): 2 pm Place: Hjertesygdommes konference lokale F203

Press release (Danish)

Narkoselægens behandling af hjertekirurgiske patienter

. Der udføres i Danmark årligt mere end 5000 åbne hjerte operationer. Narkoselægen spiller en afgørende rolle i behandlingen af den hjertekirurgiske patient. Narkoselægen er ansvarlig for den ikke-kirurgiske behandling som hjertekirurgiske patienter modtager under og efter kirurgi. Udover narkose består denne behandling af forebyggende antibiotika, væskebehandling samt behandling med hjerte-karstimulerende medicin. Alle elementer, som er en vigtig del af hele operationsforløbet, og som kan have indflydelse på forekomsten af komplikationer efter hjertekirurgi. 5 register-baserede studier har undersøgt forskellige elementer af narkoselægens behandling af hjertekirurgiske patienter. Brug af hjerte-karstimulerende medicin anvendes uden væsentlig videnskabelig belæg, og vi observerede en stor variation i brugen af de forskellige typer hjerte-karstimulerende medicin, både på afdelingsniveau samt på enkelt behandler niveau. Desuden synes forekomst af komplikationer at være meget lidt afhængig af valg af type af hjerte-karstimulerende medicin.

Desuden observerede vi at flere elementer af den ikke kirurgiske behandling har en skadelig på virkning af nyrefunktionen. Resultaterne tyder på at både gentamycin og syntetiske væske-substitutioner udgør en selvstændig risiko for udvikling af akut nyresvigt efter hjertekirurgi. Studierne er en del af et nyt PhD-projekt fra Operation og Intensiv Øst, Aarhus Universitetshospital og Klinisk Institut, Aarhus Universitet, Health. Projektet er gennemført af læge Dorthe Viemose Nielsen, der forsvarer det d. 16/06/2017

Forsvaret af ph.d.-projektet er offentligt og finder sted den 16/06 kl. 14 i Hjertesygdommes Konferencelokale F203, Aarhus Universitet, Palle Juul-Jensens Boulevard, Indgang F, Aarhus. Titlen på projektet er "Perioperative care of the cardiac surgical patient; The Anesthetist' perspective". Yderligere oplysninger: Ph.d.-studerende Dorthe Viemose Nielsen, e-mail: dorthnie@rm.dk, tlf. 24213002.

Press release (English)

Anesthetist' role in cardiac surgery

In Denmark more than 5000 open heart procedures are performed on a yearly basis. The anesthetist has a crucial role in the management of the patient undergoing cardiac in the perioperative period. Many different drugs and fluid components are involved and the risk of nephrotoxic exposures is eminent

Based on 5 retrospective register-based studies, this thesis was designed to evaluate clinical outcome measures of perioperative interventions with regards to potential nephrotoxic exposures. Furthermore, to evaluate clinical practice regarding use of vaso-active drugs and the association between use of these drugs and clinical outcomes. Gentamycin, a nephrotoxic antibiotics and synthetic fluid components pose a specific risk to the patients. Vasoactive drug are used with little science or guidelines as support. Great variation variations in the usage of the different types of vasoactive drugs was observed between cardiac centers and between individual anesthetists. Overall outcome seems to be very little dependent on choice of vasoactive drug. This project was carried out by Dorthe Viemose Nielsen, who is defending her dissertation on June 16<sup>th</sup> 2017.

The defence is public and takes place on 06/16 at 2pm in Hjertesygdommes konferencerum F203, Aarhus University, palle Juul-Jensens Boulevard, Entrance F, City. The title of the project is Perioperative care of the cardiac surgical patient; The Anesthetist' perspective. For more information, please contact PhD student Dorthe Viemose Nielsen, email: [dorthnie@rm.dk](mailto:dorthnie@rm.dk), Phone +45 24213002.

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