



# **Routine procedures in the care of the full-term newborn**

av

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## **Akademisk avhandling**

Avhandling för medicine doktorsexamen i medicinska vetenskaper,  
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## Abstract

Miriam Pettersson (2021): Routine procedures in the care of the full-term newborn. Örebro Studies in Medicine 228.

This thesis presents four studies on routine procedures used in the care of the full-term newborn. The overall aim of the thesis was to study the effects of these routines and endeavour to find ways to improve them.

Study I, an observational study, included 28 healthy newborns, assessing pain during neonatal hip examination. Pain was assessed using Premature Infant Pain Profile Revised (PIPP-R), near infrared spectroscopy (NIRS) and galvanic skin response (GSR). The results showed that the pain scores and NIRS and GSR readings were significantly higher during hip examination than for the heart auscultation indicating that neonatal hip examinations are painful.

Study II was as a double blind, randomized controlled trial (99 patients included) evaluating whether oral sweet solution has a pain relieving effect during neonatal hip examination. Total crying time, crying time during the hip examination, ALPS-Neo and VAS (when assessed by the physician) were all significantly decreased in the group of infants receiving glucose, the conclusion drawn from this is that oral sweet solution seems to have a pain-relieving effect during neonatal hip examination.

Study III and IV were based on a multicenter randomized controlled study, where 147 patients from 6 hospitals were included. Study III evaluated whether home phototherapy could be a feasible and safe alternative to in hospital phototherapy for term newborns. The results showed that home phototherapy could be a safe alternative to inpatient phototherapy for other healthy newborn infants with hyperbilirubinemia if daily check-ups and telephone support can be provided.

Study IV, examined parent's experience of home phototherapy (n=15) using a qualitative design. The study showed that the overall experience was positive and that parents expressed a sense of feeling safe with managing the treatment at home. They also felt that the ability to provide phototherapy at home helped them to adapt to everyday life and enhanced their positive experience of parenthood.

*Keywords:* newborn, pain, neonatal hyperbilirubinemia, home phototherapy, neonatal hip examination, oral sweet solution, pain assessment,

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