# Förekomst och behandling av smärta samt interventioner som bidrar till förbättrat smärtomhändertagande hos patienter på sjukhus

## Akademisk avhandling

Som för avläggande av doktorsexamen vid Sahlgrenska akademin, Göteborgs universitet, kommer att offentligen försvaras i hörsal Arvid Carlsson, Academicum, Medicinaregatan 3, Göteborg den 19 mars, klockan 13.00

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## Avhandlingen baseras på följande delarbeten

- I. Andersson V, Bergman S, Henoch I, Wickström Ene K, Otterström-Rydberg E, Simonsson H, Ahlberg K. Pain and pain management in hospitalized patients before and after an intervention. Scandinavian Journal of Pain. 2017;15:22-29.
- II. Andersson V, Bergman S, Henoch I, Simonsson H, Ahlberg K. Pain and pain management in children and adolecents receiving hospital care – a gap between what we know and what we do. Manuscript submitted.
- III. Andersson V, Otterström-Rydberg E, Karlsson A-K. The Importance of Written and Verbal Information on Pain Treatment for Patients undergoing Surgical Interventions. Pain Management Nursing. 2015;16(5):634-641.
- IV. Andersson V, Bergman S, Henoch I, Simonsson H, Ahlberg K. Benefits of using the Brief Pain Inventory in patients with cancer pain: an intervention study conducted in Swedish hospitals. Supportive Care in Cancer. 2019. doi: 10.1007/s00520-019-05200-6.

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# The occurrence and treatment of pain as well as interventions that contribute to improving pain management in hospitalized patients

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### Abstract

**Background:** Pain is common in hospitalized patients. Despite the availability of various treatment methods and effective drugs for optimal pain alleviation, research has revealed that pain treatment remains suboptimal. **Aim:** The overall aim was to investigate the prevalence and treatment of pain in hospitalized patients, and whether interventions can improve pain management.

Methods: A combination of methods was employed for data collection and analysis. Study I is a quantitative cross-sectional study. An intervention comprising the use of pain guidelines, education and nurses with responsibility for pain management was implemented between baseline (n=306) and follow up (n=296). Study II is a cross-sectional study that examined the occurrence and treatment of pain in 69 hospitalized children and adolescents aged 6-18 years. Study III is a qualitative interview study where content analysis was employed. Out of 18 adult patients who had undergone orthopaedic surgery, nine received oral information and nine both oral and written information about pain treatment. Study IV is a controlled intervention study comprising 264 patients with cancer pain, half of whom were allocated to a control group and the other half to an intervention group. A multidimensional pain questionnarie was used in which the patients rated their pain. After the baseline measurements, the completed questionnaires were given to the care team, while only the researchers had access to those of the control group. The follow up measurement took place 3-5 days later.

Results: Study I revealed significant differences in terms of increased use of pain rating and improved drug prescription. Study II highlighted deficiencies in pain rating and drug prescription in hospitalized children and adolescents. The children reported that drugs as well as different non-pharmacological methods provided pain relief. Study III demonstrated that the patients perceived that oral and written information provided them with knowledge that enabled involvement in their own pain treatment, whereas oral information alone was difficult to remember and use postoperatively. Study IV showed a significantly lower pain intensity and less influence on other pain-related dimensions and symptoms, as a result of drug adjustments in the intervention group.

Conclusion: The present thesis contributes knowledge about the occurrence and treatment of pain in hospitalized patients. Interventions can facilitate improved pain management, both in terms of pain rating and treatment. Improved pain treatment can reduce pain and lead to less impact on other dimensions and symptoms. More research in the area is needed to design several interventions that can alleviate pain, increase knowledge and raise awareness of the need for greater focus on ethical and humanitarian aspects of caring for patients with pain.

**Keywords:** pain prevalence, pain rating, pain management, guidelines, acute pain, chronic pain, cancer pain, children, symptom experience