# Neuraxial analgesia for patients with advanced cancer and refractory pain – development of recommendations.

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## Background:

Cancer pain is one of the most common and possibly the most feared symptom in cancer patients, especially in patients nearing the end of life. Although approximately 80% of cancer patients with pain are estimated to achieve sufficient pain relief using the principles of the analgesic ladder from WHO, there is a small group of patients who suffer intractable pain despite conventional pain management. To these patients neuraxial analgesia must be considered an option. In neuraxial analgesia medications are delivered close to the central nervous system through a catheter placed in the epidural or intrathecal space. The evidence regarding this procedure suggests better pain management and less unwanted side effects in selected patients. However, neuraxial analgesia is an invasive procedure with possible serious complications and side effects, and it requires an experienced team to establish and to maintain the procedure. Therefore it is very important to have a clearly and well defined set of local recommendations regarding different aspects of the procedure.

#### Aim:

The aim of this study is to develop a set of recommendations based on a literature survey on important topics of neuraxial analgesia:

- 1) How to select the right patients for the procedure?
- 2) Which procedure is preferable epidural or intrathecal analgesia?
- 3) Which medications to use, how to combine them and how to dose and titrate?

The recommendations are meant to give an overview of "the state of the art" regarding the three topics, and to use them in making a procedure description on intrathecal analgesia at the Palliative Care Unit, Odense Universityhospital.

#### Materials and methods:

A search on PubMed was conducted January 2019 using the search terms "cancer pain" AND "intrathecal OR intraspinal OR spinal OR epidural OR neuraxial". The search was specifically for guidelines and systematic reviews 10 years back, full text, limited to humans and in the languages: English, Danish, Swedish and Norwegian. The search was also done for published guidelines on DMCG-pal (the Danish Multidisciplinary Cancer Group of Palliative care), ESMO (European Society for Medical Oncology) and EAPC (European Association for Palliative Care). A search on google.com and palliativedrugs.com was also conducted.

# **Results:**

The search yielded 355 results. 44 abstracts were chosen for further study based on their reference to the 3 topics. In total 17 references were selected (4 guidelines, 9 reviews, 1 editorial, 1 book and 2 web pages) and used to create the set of recommendations addressing the 3 important topics on neuraxial analgesia.

These recommendations are now available on the local internet for clinicians working in the specialized palliative field in the Region of Southern Denmark.

### **Conclusion:**

Based on the recommendations developed here, the Palliative Care Unit at Odense University Hospital is collaborating with the Department of Anesthesia towards establishing a set-up, where neuraxial analgesia will be an option for selected patients with advanced cancer with refractory pain.

No randomized controlled trial comparing epidural vs intrathecal analgesia for cancer pain was identified in the literature search. However, the identified literature indicated several advantages using the intrathecal compared to the epidural procedure in selected patients. Based on this, we have changed our procedure to offering intrathecal analgesia as a first choice. A written procedure description is being made on intrathecal therapy containing clear definitions on indications, technical considerations, drug therapy, responsibility, catheter care and management of complications and side effects.