Pain at the end of life: what can data from over 215.000 cancer patients teach us about prevalence and relief?

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Pain at the end of life in cancer patients: A population-based study on prevalence, relief and the role of pain assessment

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BACKGROUND

Pain is a common and debilitating symptom in advanced cancer and its assessment is widely recognized as crucial for effective management.

Real-world evidence on pain prevalence, relief, and the impact of structured assessment across cancer types at the end of life remains limited.

OBJECTIVE

To examine **pain prevalence** and **pain relief** during the last week of life across cancer types and to explore the association between use of structured pain assessment tools and pain relief

METHODOLOGY

We analyzed data from 215,317 patients who died from cancer reported to the **Swedish Register of Palliative Care** (2011-2023). Data in the Swedish register of Palliative are based on a validated end-of-life questionnaire completed by a physician after the patient's death.

Patient characteristics and physician reported end-of-life pain outcomes (prevalence of pain, severe pain, use of structured pain assessment (e.g., VAS/NRS), pain relief (completely or partially/not at all) were used in this study.

Pain prevalence and pain relief across cancer types were examined descriptively and through multivariable logistic regression analyses, including analysis of the association between structured pain assessment and complete pain relief.

KEY RESULTS

Overall, **82%** of patients experienced pain during their final week of life, with **35%** reported to have had severe pain. Complete pain relief was reported in **77%** of patients who experienced pain.

How do pain prevalence and relief vary by cancer type?

Relatively high pain prevalence was observed in pancreatic (OR 135), prostate (OR 1.28) and bone/soft tissue cancer (OR 1.11)

Patients with prostate and bone/soft tissue cancer had the lowest odds of complete pain relief (OR 0.81 and OR 0.84 respectively)

Relatively low pain prevalence was observed in brain/CNS cancers (OR 0.47)

Patients with brain/CNS cancers had the highest odds of complete pain relief (OR 1.70)

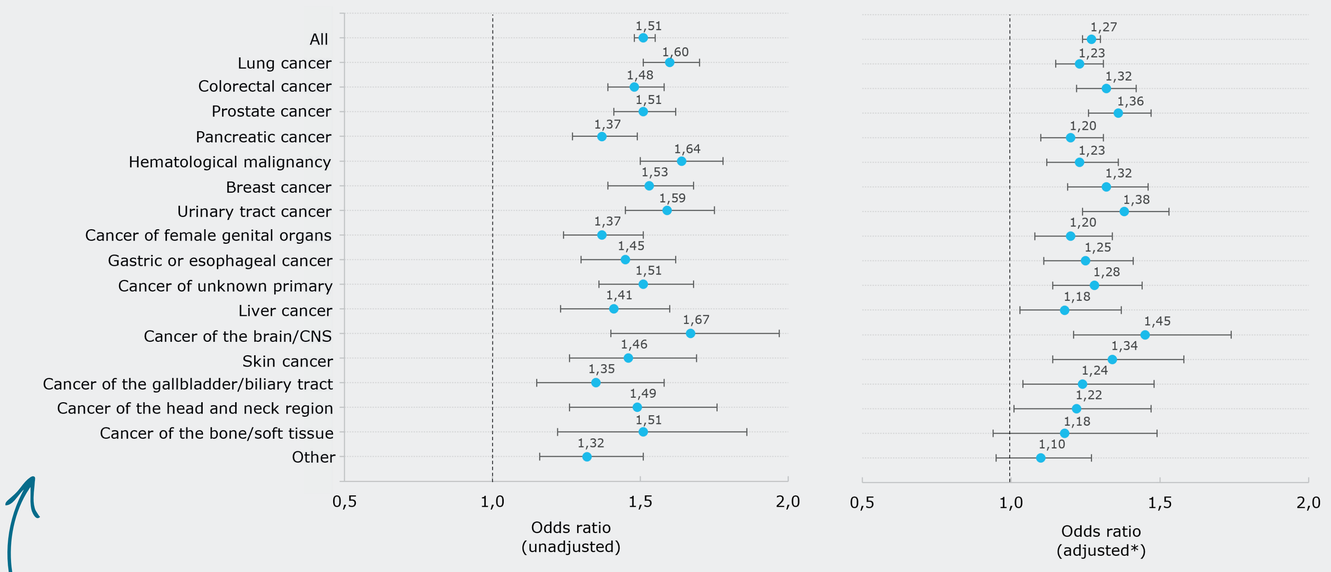


*Fig 1. Odds ratios for the association between pain assessment (VAS,NRS or other validated tool) and complete pain relief during the last week of life in cancer patients. *odds ratios were adjusted for age, sex, place of death, presence of an end-of-life discussion and consultation of external expertise in the management of symptoms.*

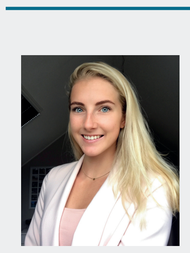
Structured pain assessment during the last week of life was significantly associated with **higher odds of complete pain relief** both overall (adjusted OR: 1.27, 95%CI: 1.24-1.30) and across most cancer types.

CONCLUSIONS

Pain remains highly prevalent in cancer patients at the end of life, with substantial variation in both prevalence and relief across cancer types

Structured pain assessment was consistently associated with higher odds of complete pain relief

These findings highlight the critical need for **routine, systematic pain assessment** and the implementation of **personalized pain management strategies** as integral components of high-quality cancer care



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