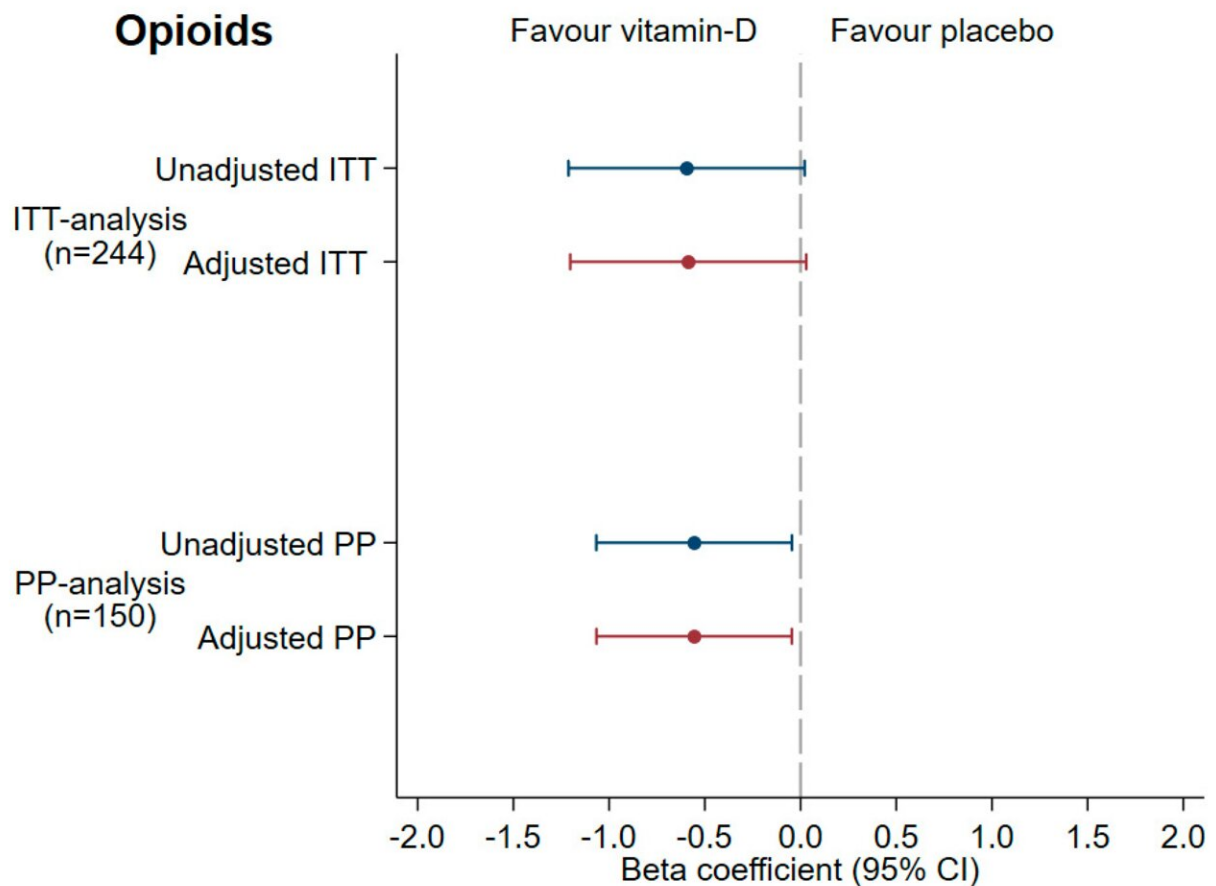


Vitamin D reduces the need for opioids in palliative cancer

August 5 2021



Main analysis: forest plots with beta coefficient and 95% CI over the opioid use in the 'Palliative-D' study. The intention-to-treat (ITT) analyses include all 244 randomized patients, and the Per Protocol (PP) analysis is based on the 150 patients that completed the 12-week study period (vitamin D 4000 IE/day n = 67 and placebo n = 83). Adjustments were made for the baseline in all analyses and for age, sex, oncological treatment, baseline 25-hydroxyvitamin D and colectomy

in the “adjusted model”. Credit: DOI: 10.3390/cancers13153707

Patients with vitamin D deficiency who received vitamin D supplements had a reduced need for pain relief and lower levels of fatigue in palliative cancer treatment, a randomized and placebo-controlled study by researchers at Karolinska Institutet shows. The study is published in the scientific journal *Cancers*.

Among patients with cancer in the palliative phase, vitamin D deficiency is common.

Previous studies have shown that low levels of vitamin D in the blood may be associated with pain, sensitivity to infection, fatigue, depression, and lower self-rated quality of life.

A previous smaller study, which was not randomized or placebo-controlled, suggested that vitamin D supplementation could reduce [opioid doses](#), reduce antibiotic use, and improve the quality of life in patients with advanced cancer.

244 [cancer patients](#) with palliative cancer, enrolled in ASIH, (advanced medical home care), took part in the current study in Stockholm during the years 2017-2020.

Slower increase in opioid doses

All study participants had a vitamin D deficiency at the start of the study. They received either 12 weeks of treatment with vitamin D at a relatively high dose (4000 IE/day) or a placebo.

The researchers then measured the change in opioid doses (as a

measurement of pain) at 0, 4, 8, and 12 weeks after the start of the study.

"The results showed that vitamin D treatment was well tolerated and that the vitamin D-treated patients had a significantly slower increase in opioid doses than the placebo group during the study period. In addition, they experienced less cancer-related fatigue compared to the [placebo group](#)," says Linda Björkhem-Bergman, senior physician at Stockholms Sjukhem and associate professor at the Department of Neurobiology, Healthcare Sciences, and Society, Karolinska Institutet.

Large study within ASIH

On the other hand, there was no difference between the groups in terms of self-rated quality of life or antibiotic use.

"The effects were quite small, but statistically significant and may have clinical significance for patients with vitamin D deficiency who have cancer in the palliative phase. This is the first time it has been shown that [vitamin D](#) treatment for palliative cancer patients can have an effect on both opioid-sensitive pain and fatigue," says first author of the study Maria Helde Frankling, senior physician at ASIH and postdoc at the Department of Neurobiology, Healthcare Science and Society, Karolinska Institutet.

The study is one of the largest drug studies conducted within ASIH in Sweden. One weakness of the study is the large drop-out rate. Only 150 out of 244 patients were able to complete the 12-week study because many patients died of their [cancer](#) during the study.

More information: Maria Helde Frankling et al, 'Palliative-D'—Vitamin D Supplementation to Palliative Cancer Patients: A Double Blind, Randomized Placebo-Controlled Multicenter Trial, *Cancers*

(2021). [DOI: 10.3390/cancers13153707](https://doi.org/10.3390/cancers13153707)

Provided by Karolinska Institutet

Citation: Vitamin D reduces the need for opioids in palliative cancer (2021, August 5) retrieved 3 May 2024 from <https://medicalxpress.com/news/2021-08-vitamin-d-opioids-palliative-cancer.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.