Title: Pharmaceutical Pain Management among Older Adults with Cancer in Nursing Homes

Authors: Camilla B. Pimentel, MPH,¹ Becky A. Briesacher, PhD,²,³ Kate L. Lapane, PhD⁴

Institutional Affiliations:
1. Clinical and Population Health Research Program, Graduate School of Biomedical Sciences, University of Massachusetts Medical School, Worcester, MA 01655
2. Meyers Primary Care Institute, Worcester, MA 01605
3. Division of Geriatric Medicine, University of Massachusetts Medical School, Worcester, MA 01605
4. Department of Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, MA 01655

Contact information: Camilla B. Pimentel, MPH (Camilla.Pimentel@umassmed.edu)

ABSTRACT (255 words)

Background: In the mid-1990s, 29.4% of nursing home (NH) residents with cancer suffered from daily pain, and among them 26% failed to receive analgesic medication. Improvements in cancer pain management in NHs have not been re-evaluated since the implementation of pain management quality indicators.

Methods: We performed a cross-sectional study using nationwide data on NH resident health from the Minimum Data Set (version 2.0) linked to all-payer pharmacy dispensing records (February 2006–June 2007). Prevalence of pain (daily, less than daily, horrible/excruciating, moderate) and receipt of non-opioid and opioid analgesics were calculated. We used multinomial logistic regression to evaluate resident-level correlates of pain and binomial logistic regression to identify correlates of untreated pain.

Results: 8,094 newly-admitted, Medicare-eligible residents had cancer. 65.6% had any pain (28.3% daily, 37.3% less than daily), among whom 13.5% had severe and 61.3% had moderate pain. Women, residents who were bedfast and those with compromised activities of daily living, depressed mood, indwelling catheter, or terminal prognosis were more likely to report pain. More than 17% of residents in daily pain (95% confidence interval [CI], 15.8–18.9%) and 14.2% with horrible/excruciating pain (95% CI, 11.7–16.8%) received no analgesics. Analgesic treatment was negatively associated with age >85 (adjusted odds ratio [aOR]=0.67, 95% CI: 0.55–0.81 versus aged 65–74), impaired cognition (aOR=0.71, 95% CI: 0.61–0.82), presence of feeding tube (aOR=0.75, 95% CI: 0.58–0.97), and use of restraints (aOR=0.50, 95% CI: 0.31–0.81).

Conclusion: Untreated pain is still common among NH residents with cancer, and persists despite pain management quality indicators.