

RADIO THERAPY

Last 30 days—hitting too hard?

Several population-based studies have investigated the use of chemotherapy at the end of life, whereas similar trials addressing radiotherapy use at the end of life are lacking—especially in the USA. Although underuse of radiotherapy for palliation has been reported, investigators from Germany have previously showed that when radiotherapy is used at the end of life, half of patients spend more than 75% of their final 30 days undergoing radiotherapy.

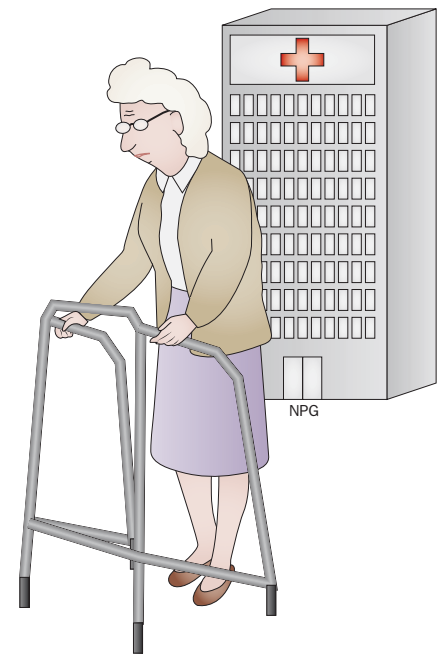
Against this backdrop, B. Ashleigh Guadagnolo and coauthors wanted to ascertain the number of patients in the USA who were dying from cancer and who had received radiotherapy in the last 30 days of life. The researchers used claims data from the Surveillance, Epidemiology, and End Results (SEER)—Medicare-linked databases to analyse radiotherapy use for over 200,000 patients who died of either breast, colorectal, lung, pancreatic or prostate cancer—the top five cancer causes of death in the USA. As Guadagnolo elaborates, “we chose this approach because of the large sample size of both academic and community-based practices.” They also investigated the influence of sociodemographic factors, and duration of radiotherapy use during the last 30 days of life.

Guadagnolo summarizes the main study findings: “The overall rate of radiotherapy use was relatively low (7.6%). However, almost 18% of patients who got radiotherapy in the last 30 days of life

received more than 10 days of radiation treatment.” Perhaps, not surprisingly, patients who received hospice care were less likely to receive radiotherapy, and the number of radiation treatment days was also lower regardless of whether patients were enrolled in hospice care before or after completion of radiotherapy treatment.

Putting these results into the context of other studies, Guadagnolo continues, “one study by Kapadia and coauthors using the National Comprehensive Cancer Network NSCLC Outcomes database did reveal a similar finding that among those who got radiotherapy for lung cancer at the end of life (defined as within 14 days of death), 17% of radiotherapy courses exceeded 10 fractions.” Assessment of the overall cost of care in the last 30 days of life also revealed higher costs associated with radiotherapy use, especially if the patients had no hospice care.

Evidence-based guidelines from ASTRO indicate that in the palliative-care setting, more than 10 fractions of radiotherapy are unlikely to provide additional benefit to patients. There is possibly an underuse of radiotherapy in patients with end-stage cancer, as it is known that palliative radiotherapy can be beneficial in terms of reducing pain and improving neurological functioning, when delivered as a short-course conventional treatment. However, this consideration should be balanced against the fact that dying patients spend a significant proportion of their final days receiving radiotherapy.



Guadagnolo comments, “this is a patterns-of-care study, not a clinical study. Future research is needed in the clinical setting to assess decision making of both patient and provider regarding radiotherapy use for advanced cancer patients, as well as to assess patient reported outcomes among those receiving radiotherapy for advanced cancer—particularly among those patients who may be approaching the end of life.”

Lisa Hutchinson

Original article Guadagnolo, B. A. et al. Use of radiation therapy in the last 30 days of life among a large population-based cohort of elderly patients in the United States. *J. Clin. Oncol.* doi:10.1200/JCO.2012.45.0585