56 years. In the 6 months after diagnosis with leptomeningeal disease, 63% had goals of care discussions documented, 72% had hospice assessment, and 89% had documentation of at least 1 of the 4 process measure. Logistic regression showed that early palliative care involvement was a significant predictor of documentation of goals of care (OR 2.43, 1.17-5.03) and hospice discussions (OR 3.44, 1.51-7.83). Median survival for 167 patients with known dates of death was 148 days.

Conclusion. Leptomeningeal disease is a marker of serious illness and should be considered a trigger for conversations about patients' goals. Palliative care involvement may promote conversation and documentation of patients' wishes.

Implications for Research, Policy, or Practice. Earlier involvement of palliative care in this patient population may help facilitate conversations about goals of care and serious illness.

Patterns of Whole Brain Radiation Therapy for Nonsmall Cell Lung Cancer Patients with Brain Metastases (SA528D)

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Objectives

- Examine the type of dose-fractionation scheme used to provide whole brain radiation therapy (WBRT) to patients with non-small cell lung cancer (NSCLC) and brain metastases.
- Describe how patient's clinical and nonclinical factors are related to the choice of dose-fractionation scheme for WBRT to NSCLC patients with brain metastases.

Original Research Background. Patients with nonsmall cell lung cancer (NSCLC) and brain metastases may benefit from whole brain radiation therapy (WBRT) to prevent or palliate neurological symptoms, but WBRT may not always provide meaningful benefit given acute toxicities and the short median survival of these patients.

Research Objectives. We examined the pattern of dose-fractionation schemes for WBRT among patients with NSCLC and brain metastases.

Methods. We included 42,327 NSCLC patients with brain metastases at initial diagnosis in the National Cancer Database from 2010-2013. We excluded patients who had missing radiation data, received stereotactic radiosurgery, received nonstandard WBRT dose-fractionation schemes, or lacked follow-up. We examined the distribution of dose/fractionation schemes for WBRT across patient and facility factors.

Results. Among NSCLC patients with brain metastases, 35.0% received WBRT (n=14,810). Patients with only brain metastases were not significantly more likely to receive WBRT than those with multiple metastatic sites ($p=0.11$).The most common schemes were 3 Gray/fraction for 10 fractions (60.6%) or 2.5 Gray/fraction for 14/15 fractions (38.11%), rather than 2 Gray/fraction for 20 fractions (3.17%) or 4 Gray/fraction for 5 fractions (1.47%). Patients prescribed longer courses were more likely to have Medicare or private insurance, rather than Medicaid or no insurance ($p<0.001$). Patients prescribed short-course WBRT lived farther from the medical center than those prescribed longer courses (median distance 26.13 miles for 3 Gray/fraction vs 18.98 miles for 2 Gray/fraction; $p<0.001$). Patients with no important comorbidities were not significantly more likely to receive long-course WBRT than those with multiple comorbidities ($p=0.45$).

Conclusion. The dose-fractionation scheme of WBRT for patients with NSCLC and brain metastases is associated with several nonclinical characteristics, including their distance to the cancer center, rather than multiple metastatic sites or comorbidities.

Implications for Research, Policy, or Practice. Policy changes should be considered to ensure that patients with NSCLC and brain metastases are selected carefully for long dose fractionations of WBRT, based primarily on clinical characteristics.