HCP-19. RETROSPECTIVE STUDY OF INPATIENT RADIOTHERAPY (RT) FOR PATIENTS WITH NEWLY DIAGNOSED MALIGNANT GLIOMA (MG) AND POOR CLINICAL STATUS
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BACKGROUND: Standard therapy for newly diagnosed MG includes fractionated RT. Poor clinical status may preclude this commonly performed outpatient treatment, raising the option of inpatient RT to palliate symptoms and improve function. Outcomes from inpatient RT have not been investigated.

METHODS: This retrospective review identified patients with newly-diagnosed MG from 2003-2014 who either completed their RT course inpatient or received their entire course of RT as an inpatient due to poor clinical status. Clinical and treatment characteristics were reviewed and compared using logistic regression between patients who did and did not present for outpatient follow-up, as a surrogate measure of clinical improvement.

RESULTS: Seventy-four patients were identified. Histology included 52(70%) glioblastoma and 18(24%) grade III with 4(6%) brainstem tumors treated presumptive-ly. Forty-six(62%) had a resection, 24(32%) were biopsied, and 4(5%) were not biopsied. A mean of 13.1 RT fractions (Stdv: 9.5, range 1-33) were delivered inpatient. Of all patients, 33(45%) were discharged to home or rehabilitation and returned for outpatient follow-up; the rest (n = 41) were discharged to home or rehabilitation (n = 20), hospice (n = 13), or died in-hospital (n = 8) and did not have outpatient follow-up. Eight patients received inpatient bevacizumab with 5(63%) having subsequent outpatient follow-up. Median survival from hospital discharge was 268 days and 56 days for patients with and without outpatient follow-up, respectively. Having a subtotal (OR 3.5; 95%CI 1.2-10.1;p = 0.02) or gross-total (OR 7.5; 95%CI 1.2-47.7;p = 0.03) resection and a longer overall RT course (OR 1.1;95%CI 1.0-1.1;p = 0.008) were individually associated with a greater likelihood of continuing outpatient care. Age, initial KPS, tumor grade, and inpatient bevacizumab use were not predictive of survival.

CONCLUSION: Forty-five percent of patients receiving inpatient RT achieved outpatient follow-up and had a longer survival. Those that had a resection or were candidates for longer courses of RT may represent a subset that could benefit from inpatient RT.