Title: Quality of life and psychosocial functioning among lung cancer patients treated in multidisciplinary vs. serial care settings

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**Introduction**

Coordinated multidisciplinary (MD) lung cancer care, in which all key specialists concurrently provide early input and develop and execute a consensus plan of care in collaboration with patients and their home caregivers, is believed to improve treatment outcomes, including health-related quality of life (QOL) and psychosocial functioning, compared to usual “serial care” (SC) treatment but has not been rigorously evaluated.

**Methods**

Prospective clinical cohort study comparing newly-diagnosed lung cancer patients receiving MD (n=156) or SC treatment (n=307) within the same healthcare system. Patients were enrolled before onset of treatment. At baseline (study entry) and 3 months after study entry, patients and caregivers were assessed on health-related quality of life (QOL), including physical, social, emotional, and functional well-being, and lung-cancer symptoms, using the Functional Assessment of Cancer Therapy – Lung Cancer (FACT-L) scale, and depression and anxiety using the Hospital Anxiety and Depression Scale (HADS). Changes in psychosocial functioning from baseline to 3 months were compared in MD and SC patients in multiple linear regression models, adjusting for demographic and treatment-related variables. Baseline characteristics are presented in the Table.

**Results**

At baseline, MD and SC groups did not differ in sociodemographic characteristics, cancer staging, QOL, depression, or anxiety. Prospective analyses of baseline to 3 month changes are underway.

**Conclusions**

Prior to treatment, MD and SC patients were well-matched in terms of demographics and psychosocial functioning. Further prospective analyses will evaluate the hypothesis that treatment-related adverse changes in health-related quality of life, depression, and anxiety will be mitigated by MD compared to SC treatment.

**Table. Baseline characteristics and psychosocial ratings**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Mean (SD) or %** | |  |
|  | **MD (n=156)** | **SC (n=307)** | **p** |
| Age (yrs) | 68.89(11.39) | 65.85(9.69) | 0.0023 |
| % male | 46.05 | 50.19 | 0.4162 |
| % African American | 34.42 | 30.19 | 0.3703 |
| % Cancer stage |  |  |  |
| 1 | 28.39 | 19.55 | 0.0371 |
| 2 | 12.26 | 12.03 | 0.945 |
| 3 | 36.13 | 25.94 | 0.0273 |
| 4 | 23.23 | 42.48 | <.0002 |
| Quality of life1 |  |  |  |
| Physical well-being | 24.90 (7.61) | 24.88 (6.99?) | .6668 |
| Social well-being | 17.73 (5.23) | 18.32 (3.89) | .8709 |
| Emotional well-being | 24.23 (6.04) | 24.04 (6.00) | .6688 |
| Functional well-being | 22.14 (7.33) | 22.05 (7.04) | .8718 |
| Lung cancer symptoms | 31.87(5.52) | 32.25 (5.80) | .4191 |
| Total summary score | 121.00 (21.42) | 121.71 (21.10) | .8073 |
| Depression2 | 4.44 (3.91) | 4.92 (4.08) | .2279 |
| Anxiety2 | 4.53 (4.08) | 5.03 (4.29) | .2584 |

1FACT-L scores; 2HADS scores