

**Title: Quality of life and burden in family caregivers of advanced cancer patients in Luxembourg: results from a single-centre study.**

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**Purpose:** The diagnosis of advanced tumor disease significantly impacts patients' and their family caregivers' (FCs) life, affecting the physical, emotional, and social well-being. Our study aimed to assess the burden and quality of life (QoL) of FCs of advanced cancer patients in Luxembourg. Furthermore, the acceptance and feasibility of the used questionnaires were evaluated.

**Methods:** A prospective study was conducted over six months, including FCs of patients with advanced cancer receiving active treatment or best supportive care. The Short Form Zarit Burden Interview (ZBI-12) and Short-Form Health Survey (SF-36) were used to assess FCs burden and QoL. Socio-demographic and clinical data were collected through a self-completed questionnaire. Pearson and Spearman correlations, t-tests and ANOVA were performed.

**Results:** 100 FCs were invited of whom 88.0% agreed to participate, and 60.2% returned completed questionnaires. FCs reported impaired QoL across all SF-36 subscales, with health change and energy/fatigue being the most impaired. ZBI-12 scores showed a statistically significant negative correlation with SF-36 scores, particularly in health domains such as role limitations due to emotional problems (0.650) and (overall) health change (0.640). Higher caregiving burden was associated with significantly reduced QoL, influenced by individual caregiver characteristics.

**Conclusions:** This is the first study in Luxembourg to assess burden and QoL of FCs of patients with advanced cancer. Findings demonstrate a strong association between increased caregiver burden and reduced QoL. Regular assessments of caregiver burden and tailored support interventions by healthcare professionals are recommended.

**Keywords:** palliative care, quality of life, caregiver, psychological burden, supportive care

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**AWARDS AND HONORS:** Bourse José-Wolter-Hirtt (2024)