

**Abstract Title:** Measuring the Impact of Cancer on Quality of Life and Health using the Cancer Dependent Quality of Life Questionnaire (CancerDQoL) and Other Widely Used Patient-Reported Outcome Measures

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**Aims:**

Widely used generic and cancer-specific measures, which focus primarily on health status/functioning, are often mislabelled as quality of life (QoL). This study aimed to illustrate the importance of distinguishing between health status/functioning and QoL in individuals with cancer by examining relationships between the newly developed Cancer Dependent Quality of Life (CancerDQoL) questionnaire and selected commonly used outcome measures.

**Methods:**

Patients (n=159) with a range of cancers, recruited from Barts NHS Trust Hospitals and Maggie's Centre, completed self-administered questionnaires including the CancerDQoL, EQ-5D-VAS (health status), EORTC-QLQ-C30 (predominantly symptoms/functioning with single overview questions on QoL and health) and W-BQ16 (well-being). Based on the template and Item Library derived from the ADDQoL for diabetes and -DQoLs for other conditions (© Bradley), the CancerDQoL measures the impact of cancer and its treatment on 23 specific life domains and the importance of each domain for QoL. Impact ratings for each life domain relevant to the individual are weighted by importance for the individual's QoL to produce weighted impact (WI) scores, which, averaged across domains, provide an Average Weighted Impact (AWI) score. The CancerDQoL also contains four overview items measuring General QoL, Cancer-dependent QoL, General health and Cancer-dependent health.

**Results:**

Cancer negatively impacted all life domains: 'feelings about the future' and 'sex life' had the most negative WI scores. 'Physical capability' WI scores were ranked 12<sup>th</sup>. As expected, CancerDQoL AWI scores were more strongly correlated with Cancer-dependent QoL overview item scores than EORTC-QLQ-C30 summary scores (combined single-item health and QoL ratings) or EQ-5D-VAS scores. The EORTC-QLQ-C30 correlated more strongly with the EQ-5D-VAS and the W-BQ16 than with CancerDQoL AWI scores.

**Conclusion:**

The CancerDQoL is the first individualised questionnaire measuring the impact of cancer and its treatment on QoL. The CancerDQoL AWI score is related to but different from the measures of health status, symptoms/functioning and well-being studied here. Eleven CancerDQoL life domains were more negatively impacted/important than physical

capability which is a major focus of the EQ-5D and EORTC measures. By revealing aspects of life most impacted by cancer and its treatment, efforts can be prioritised to improve QoL for people with cancer.