

## ABSTRACT

**Background:** With recent advancement of technology, the concept of electronic patient generated health data (ePGHD) has made prominence in the field of oncology and palliative cancer care. ePGHD can be described as electronic data that generated by patients through biometric devices or simply entering personal health data by patients on an electronic device. ePGHD promotes healthcare delivery by focusing on patients' experience and empowers patients to be involved in their illness management.

**Objective:** To develop a strategy for adoption of electronic patient generated health data in palliative cancer care in Sri Lanka through a digital health approach.

**Methods:** Exploratory sequential mixed method design was used to elicit user requirements. Qualitative interviews were conducted with 10 patients, followed by self-administered questionnaires given to 80 patients. Four healthcare providers were interviewed.

**Results:** A total of 90 patients and four healthcare providers participated in this study. Patients' symptom burden, difficulties in reaching palliative clinic, problems of recalling the health issues at clinic, need for remote communication and lack of familiarity with technology were identified as key issues. Clinicians were aware of patients' symptom burden and need for remote management. Use of symptom evaluation tools and need for electronic system to maintain patient records were identified. Clinicians were sceptical about the use of ePGHD for clinical decision making but were willing to use them in urgent health issues. Functional requirements were derived from the findings and incorporated in a preliminary software design (low-fidelity prototype).

**Conclusions:** There are number of unmet needs associated with provision of palliative cancer care in Sri Lanka. Analysis of stakeholder requirement is essential to develop a strategy to utilize ePGHD in palliative cancer care in the local context. Using such strategy and software development principles, a user interface can be designed as a preliminary step of a future DHI using ePGHD.