

BD₄QoL

BIG DATA FOR QUALITY OF LIFE

Newsletter #8 July '24 – December '24

1. ABOUT THE BD4QoL PROJECT

BD4QoL aims at **improving head and neck cancer survivor's Quality of Life** through person-centred monitoring, post-treatment support and personalised follow-up.

BD4QoL takes advantage of **technologies for social communication** and **unobtrusive personal monitoring** embedded in smartphones to **improve head and neck cancer survivor's Quality of Life**. Physical activity, social interactions, sleep, and health data are automatically collected by a mobile app for over two years after treatment and will be analysed to early intercept quality of life deterioration and health risks.

The project will last until December 2024. Would you like a closer look on how BD4QoL works and is implemented? See the project's presentation video: <https://youtu.be/90YmWxtytn0>

Give a look at the BD4QoL [leaflet](#) and [presentation](#) to know more about the first projects results!

For more information about BD4QoL, visit: www.bd4qol.eu

2. BD4QoL EVENTS

7TH Plenary meeting

December began on a collaborative note with a highly productive plenary meeting held in Madrid, bringing together the BD4QoL consortium. The gathering served as a stage to review the overall progress of the project and to present and discuss the status and preliminary results of our prospective study. This dynamic exchange of ideas reaffirmed our collective commitment to deliver solutions to enhance the quality of life for head and neck cancer survivors.

Discussions underscored the pressing need to address gaps in survivorship care, as highlighted in a recent systematic review (<https://pubmed.ncbi.nlm.nih.gov/39687101/>). The study revealed that despite the significant physical and psychological burden faced by head and neck cancer patients, health-related quality of life (HRQoL) remains underrepresented as a primary endpoint in clinical trials. While inclusion of HRQoL as an endpoint has increased over time, it is still notably absent in many phase II and III trials, limiting the comprehensive evaluation of treatment impact. This aligns closely with BD4QoL's mission to leverage big data and artificial intelligence to address this gap. By integrating Patient-Reported Outcomes (PROs) and real-time HRQoL monitoring into our platform, we aim to redefine the standards of post-treatment care, ensuring a holistic approach that prioritizes both survival and quality of life for cancer survivors.

3. BD4QoL NEWS

Return to work in Head and Neck cancer patients and Quality of life: insights from literature



A recent review was published with the aim of determining the prevalence of return to work (RTW) amongst head and neck cancer (HNC) survivors and to determine its impact on quality of life (QoL), providing some interesting results. The meta-analyses found a pooled prevalence of RTW in HNC survivors of 67% (96% CI 62%-73%), with a high heterogeneity between studies. In-depth analyses

found that 44% (96% CI 38%-51%) of HNC survivors worked a reduced number of hours and 30% (95% CI 15%–45%) had to change work after completion of their treatment. As regards QoL patients who RTW were demonstrated to have lower anxiety and depressive symptoms, improved physical and social-emotional function, and a higher global QoL when compared to the non-RTW group. The wide variability in the RTW reported in the meta-analysis is due both to the variety of sociodemographic and clinical characteristics considered and to the variations in measurement of RTW between studies. Another limitation is that most of the studies included in the meta-analysis are cross-sectional. This suggest that future studies need to use consistent definitions for RTW and consider confounding factors which may influence RTW rate, but also that longitudinal studies are preferable to better understand the history of RTW.

UPM attended the 46th IEE EMBS international conference



UPM participated in the ‘Digital Oncology: supporting clinical trials with biomedical sensors and wearables in cancer treatment and post-cancer follow up’ leading this mini symposium, within the 46th annual IEE EMBS international conference (15-19 July, orlando, USA). In particular contribution on the discussion of these two slots:

“Designing protocols and data analysis for discovering predictors and risk factors in chronic diseases” presenting study design and challenges addressed.

“Benefits and opportunities of RWD through wearables and sensors for innovative cancer treatment and survivorship methods and tools in the context of clinical trials” showcasing the technology solution developed within the clinical trial rationale.

During the congress, BD4QoL promoted the project results showing the relevant oncology research-specific considerations regarding how patient health status and routinely collected data can support the delivery of health care, as well as provide critical evidence for

improving their quality of life.



4. **BD4QoL PUBLICATIONS**

Do you want to know more about the first outputs of the BD4QoL project? Have a look at [deliverables published](#) by BD4QoL project so far!

5. **BD4QoL activities on social network**

BD4QoL social channels are constantly updated with all the **latest news**. Follow us for more updates!

- [X](#)
- [Instagram](#)
- [LinkedIn](#)
- [YouTube](#)