**iGestSaúde: Portuguese Mobile Application for the Self-management of Symptoms Associated with Chemotherapy Treatment**

**Background:** People with oncologic disease undergoing chemotherapy treatment refer the need to promote the process of self-management of the disease and the symptoms associated with the treatment. This study aims to describe the development of a mobile application (APP) that support the self-management of the symptoms associated with chemotherapy treatment and strengthen communication between patients and healthcare professionals: the iGestSaúde.

**Methods & Materials:**
Application development: 6 steps over 36 months time period.

- **Methodology:** Systematic Review of Literature
  - Identify therapeutic guidelines for major complications associated with chemotherapy treatment

- **Consensus Study**
  - Consensus on guidelines identified in the literature, categorized into two levels: self-care prevention and treatment

- **Pilot Study**
  - Methodology: Longitudinal Descriptive Study
  - Validate therapeutic guidelines in a group of cancer patients undergoing chemotherapy

- **Development**
  - The software application and the application flow chart will be developed
  - This phase includes the design of the entire architecture, algorithm, and database creation

- **Testing the APP**
  - Methodology: Randomized Controlled Pilot Study
  - The iGestSaúde platform will be made available and tested in a real context, namely with patients in oncology day hospitals in the district of Porto

- **Evaluation**
  - Methodology: Quantitative study - Mobile App Rating Scale (MARS/MARS) and mHealth App Usability Questionnaire (MAUQ)
  - Include an overall assessment of the application on-site, both from the perspective of users (cancer patients), and health professionals, researchers and administrators

**Discussion:** The project will monitor and improve patients’ compliance to chemotherapy, to prevent chemotherapy associated complications through preventive indications for self-care, and to improve patients’ responses to uncontrolled symptoms or complications. And also, favor adherence to therapeutic indications and answering to the symptoms or complications that may appear associated with the disease.

The development of this APP may improve the quality of life of these patients and promote an alternative and efficient way of communication with healthcare professionals. APPs should be tested outside the academic environment, outreach this group of people, allowing to effectively investigate its applicability and to assess the impact of this “new” technological intervention options. Particularly in this case with therapeutic guidelines validated by healthcare professionals.

**Conclusion:** APPs can be considered a viable and effective tool for self-management of complications associated with chemotherapy treatment, supported by scientific evidence and these people’s specific needs. Despite the recent technological advancements, namely in the design of applications targeting the healthcare area, they lack scientific rigor, particularly in what concern the development of their contents and adequate sustainability, which is the great asset of this project.

The proposed solution, iGestSaúde, was developed based on the knowledge obtained by focusing on people’s needs, intended to be the starting point to important contributions for the improvement of knowledge associated with the nursing discipline and the excellence of nursing care in people with cancer undergoing chemotherapy.