

5th International Conference on

Medical Informatics & Telemedicine

August 31- 01 September, 2017 | Prague, Czech Republic

DEVELOPMENT OF AN E-HEALTH TOOL FOR THE FOLLOW UP OF EARLY DISCHARGE PREMATURE BABIES: E-PREMATUR

Elisenda Rull Bes^a, Maria Ferrè^b, Sagrario Acebedo^b, Juan Roldán^c and Equip e-Prematur^a^aUniversity Hospital Dexeus - Grupo Quirónsalud, Spain^bUniversity Rovira i Virgili, Spain^cUniversity of Barcelona, Spain

Statement of the Problem: Worldwide, the preterm birth rate is estimated to be about 11 per cent and about 15 million children are born preterm each year. (1, 2) The early NICU discharge has been advocated for selected preterm infants to reduce both the adverse environment of prolonged hospital stay and to encourage earlier parental involvement by empowering parents and reduce the costs of care. (3) But this early discharge need to be complemented with a follow up, in most of the cases with nurse in-home visits (4). Conventional hospital-based post discharge monitoring could be improved in terms of costs and clinical effectiveness by using a telemedicine approach (5). Objective: To inform the development of a web-based and mobile application. We develop a consumer-focused e-health tool, for the follow up of the early discharge of premature babies.

Methodology & Theoretical Orientation: To ensure a patient-centred e-health tool we made interviews with proposed end-users. For the clinical issues, we formed a research team with experienced NICU nurses, neonatologists and allied health professionals. We also count on one IT company for the programing and technical support. This four years' project involves, defining the target audience and needs, software development including validation and testing the algorithm, pilot testing and refinement and end-user testing.

Findings: We made a large review of the literature about interventions for the follow up of the early discharge of premature babies. To ensure the needs of the end-user we made thirteen in-depth interviews to parents of premature babies. The analysis revealed they want to get in touch with an NICU expert, emotional support and an easy use tool. The workshop with nine multidisciplinary health care professionals check the algorithms and parameterization of the alarm system, work on the evidence based health care information as well as verify the needed fields for a correct follow up. The first pilot testing was done by professional's experts in Neonatology; they check the whole tool functionality. The end-user testing was done by twenty-four parents.

Conclusion & Significance: This e-Health program with a patient-centred telematic tool enable the professionals of the Neonatal Intensive Care to establish a follow up program empowering the parents with the premature baby care, without the need of costly and time consuming home visits.

Biography

Elisenda Rull Bes did B.Sc. in Nursing and M.Sc. in Nursing Sciences. PhD student in Nursing Sciences with the thesis titled: e-Health program for the follow up of the early discharge premature babies. Neonatal Intensive Care Unit Nurse since 2008 at Hospital Universitari Quirón, Dexeus. Tutor of students doing Nursing degree at Campus Docent Sant Joan de Déu since 2013. Author of e-Premature and coordinator of the research team.

elisenda.rb@gmail.com

Notes: