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CONFERENCE ABSTRACT

Implementation and validation of the C3-Cloud system: a new generation for integrated care tool developed with and for multimorbid patients

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The clinical management of multimorbid patients with chronic diseases is complex and often uncoordinated resulting in fragmented care. A more active collaboration with patients & carers is required for the better management of care.
The EU C3-Cloud project (689181) brings together key evidence-based information in an innovative ICT system to encourage improved, patient-centered, integrated care activities by a multidisciplinary care team (MDT). The system is based on two main components, which are interlinked: the first is used by the patients promoting their empowerment and self-management and the second is used by all healthcare professional members to create personalized care plans.
The aim of C3-Cloud is to improve the care of multimorbid patients, enabling the delivery of integrated, collaborative, coordinated and patient-centred care through evidence-based decision support, and personalised care plans. The theory of change is achieved during the implementation of the C3-Cloud intervention across three different organisational settings in Europe and their evaluation.

C3-Cloud involves more than 500 multimorbid patients and 160 healthcare professionals who use the new system during the intervention as part of the routine care process across three sites in Europe.
The use of the C3-Cloud system by participants starts from October 2019 and runs for 5 months
A user-centered design approach was followed from the beginning of the project and has enabled the specifications of the conceptual design of the C3-Cloud architecture, from which the new system has been developed. Based on the application deployment design, the final application has been deployed and operated in the sites. Technical and semantic interoperability between C3-Cloud and local systems have been ensured by also implementing necessary security and privacy measures.
In each site, operational procedures have been implemented for recruitment, training, operation of C3-Cloud and coexistence with local technology during the intervention and evaluation.

Co-production between technical teams and end-users has been guaranteed through the whole project.
The use of human resources available and technological resources generated along the project enable subsequent deployments. Sustainability planning is embedded in the project work plan.
After the evaluation, the organisational change elements will be identified and organised as an adoption and decision-making blueprint for scaling up. Modular design and standards-based components make it feasible to transfer the C3-Cloud implementation to other sites.
The key elements for the deployment and operation of C3-Cloud providing the interoperability have been identified and implemented. The readiness of the main organisational aspects has been ensured for the intervention.
The intervention starts in October 2019. It aims to prove the improvement of the care of multimorbid patients by means of facilitating coordinated care, treatment optimizing and patient self-care. The evaluation of the implementation in terms of technology acceptance and cost-effectiveness will be performed after 5 months piloting and shared during the conference.
The contribution of end users has been crucial for the development of C3-Cloud system.
The intervention requires controlling all the operational aspects to ensure consistency between organisational environments, population groups and the C3-Cloud care model.
Training must ensure that participants have sufficient knowledge to participate effectively.