EVITOM Project: Mobile App for Specific Oral Tolerance Induction in children

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This project aims to develop a system based on mobile technologies for better management of Specific Oral Tolerance Induction interventions. The intervention is designed to provide a better control of children suffering from milk and egg allergy or hypersensitivity through an improved communication between their parents and allergy department. As well, this technology will provide specific functionalities to improve the security and follow up of these patients, as well as better access to specific healthcare information.

EVITOM mobile app is specifically designed to include reminders for medication intake, appointments as well as document any specific event such as cofactors, incidences and allergic reactions. They are complemented with specific advices for cofactor management to reduce the risk during the induction at patient home. This app includes functionalities to increase patient adherence to treatment by comparing their response with the full community of patients.

Moreover, the project includes a hospital platform to allow clinicians to review patient performance and communication with the parents of the patient. The communication flow has been specifically designed to reduce the impact of this communication in the workflow of healthcare professionals.

EVITOM infrastructure makes use of the IHE profiles for document sharing XDS. Moreover, the infrastructure was designed in order to satisfy the requirements for Electronic Health Record communication and exchanges information according to the ISO EN13606 standard. They include security features such as SSL and token based authentication that allow providing a framework for safe communication of patient health information between hospital infrastructure and mobile phones.

The developed systems are currently in the testing and validation stage. In the coming weeks, this project will include an evaluation with 100 patients to compare the impact of this mobile intervention to usual care. The evaluation of health outcomes according to total reactions, avoided reactions, reactions treated correctly and quality-adjusted life years (QALYs) will be able to determine the cost-effectiveness of this intervention. This project was funded by the Spanish Society of Allergology and Clinical Immunology.

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