



Organizing out of hospital care of chronic patients and aging population

A project that shows the influence and importance of patient care

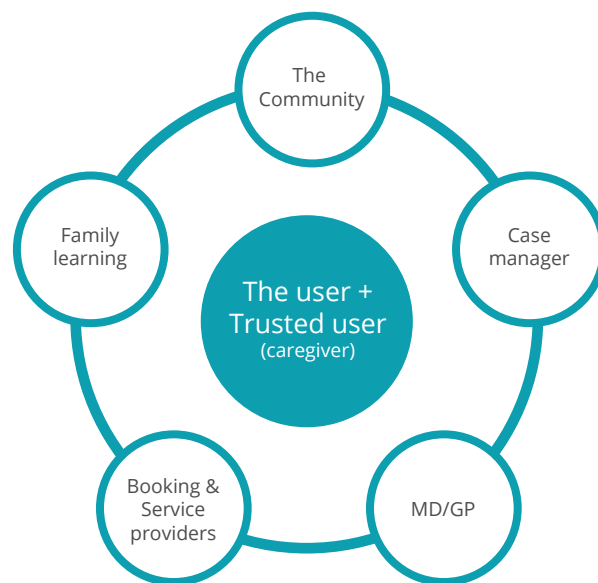


When Care and Informatics know how to embrace patient's needs

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The project was carried out in collaboration with COOSS Marche – a social, healthcare, welfare and education services provider and a project partner of the Adriatic Model of Sustainable Mobility in the Health & Care Sector. The main goal was to implement an integrated care platform that would connect both medical staff and patients in one place, enabling communication and exchange of medical data and documents through a secure online platform.
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Countless studies have shown that engaging a patient improves disease management results. Putting patients in the center of care encourages them to follow the proposed program and to actively participate in their treatment.

The project objective was to integrate all actors and all process steps in the same place, which is often difficult since the medical staff don't have the appropriate tools to do so. The tool that can bind the different roles together is a collaborative portal platform with the ability to integrate with different information systems and to give the users appropriate rights to view medical documentation, measurements and the patient's health record remotely.



Challenge:

Connecting doctors and patients in a single platform

In IT, the biggest challenge is establishing a joint, digital health record for doctors and patients and facilitating communication between professionals and patients through email and screen-to-screen contact.

Based on the good experience with the AdriHealthMob project for the Doctor's Access, we were invited to implement also the Patient's Access, focusing on chronic patients and nursing communities.

A solution that puts patients in the centre of care

Project results

- **Intuitive Health care portal**
 - **Increased efficiency**
 - **Reduced paperwork**
 - **Improved care results**
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Focus on “out-of-hospital” services

The Patient Access platform primarily serves patients and their guardians who are being managed by assigned care managers (nurses or other medical staff) or operatives that perform different services for them and coordinate their treatment in the social care process. The portal enables parametrisation of different user profiles to access medical documentation in a safe and secure way.

Patient Centric features

The Patient Access platform is customized to best fit the patients. It consists of several different modules:

Dashboard – an entry point for the logged in users, serving as a landing page with an overview of the whole portal and quick access to other modules, customized and personalized to fit the user’s functional requirements.



Benefits

- **User engagement**
 - **Responsive user interface**
 - **Patient centric care**
 - **Synergy with medical and social care institutions**
 - **Efficient care process**
 - **Remote access to medical data**
 - **Stimulates patient's self-management**
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Messaging - secure and safe communication engine, used by patients to communicate with medical professionals, registered at the portal.

Events & booking - helps patients overviewing and creating events and appointments with the proposed slot system. It also enables online ordering of various nursing services. This part is integrated with an external booking system.

My record - displays all available information about a patient, from their personal data, to the medical documents (integration with external sources, according to the international medicine informatics standard - IHE), health record with a list of patient's problems, allergies and medication, prescriptions etc. The portal also allows to generate a medical summary for each patient.

Remote Patient Monitoring - displays patients' health indicators like weight, blood pressure, heart rate frequency, oxygen saturation etc. It monitors the data and displays it in charts as well as in numeric values. It enables an overall view of the patient's health status and more importantly - it helps understand the trend of the data overtime. The platform supports also integrations with external systems to get patient's data or the measurements can be uploaded also manually by the users with adequate permissions (care managers).



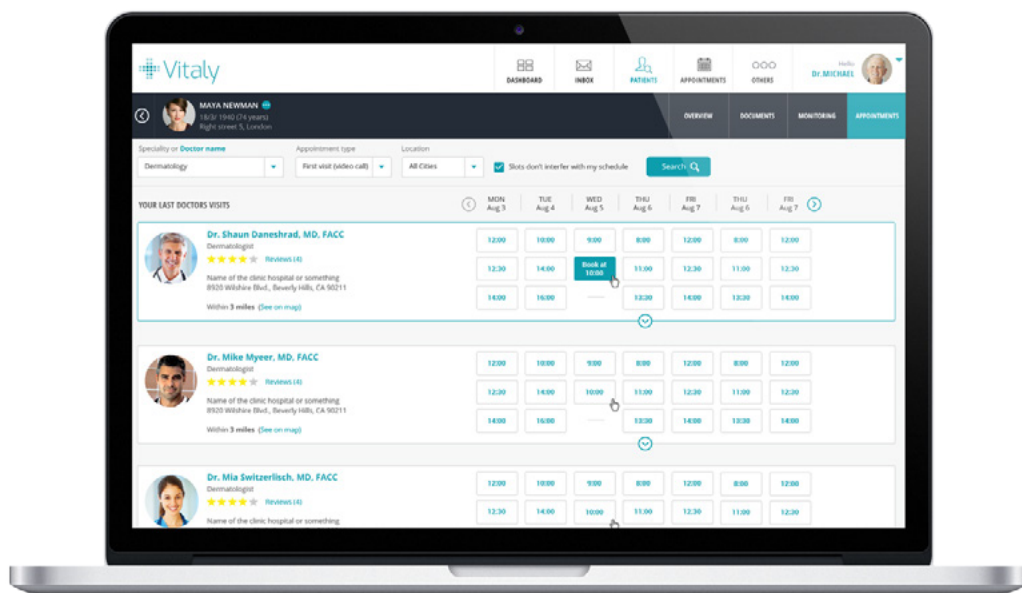
Community of users

Chronic patients require a strong community and social support, which involves also non-medical professionals (e.g. social workers) and family members in the care program. Vitaly provides social features such as online chat, blog, forum and wiki where different users can share their knowledge, address questions and exchange their opinions, which also contributes to the overall positive outcome. The community is managed by a community manager with restricted permissions (can access only those parts of the application that concern social activities).

Integration with external solutions

Vitaly platform is integrated with several external systems, in order to ensure a complete solution that is safe and secure and responds to patient's needs:

- **Identity provider** – covers user registration and authentication, compliant with Italian national standards,
- **Care Manager platform** – for care managers and operators, to coordinate different services for patients and to manage their own staff,



- **Booking system** – for managing events and appointments and for buying different home nursing services or products.

Landing page

All external solutions together with our Vitaly portal form an integrated ecosystem, having a common entry point - a product presentation page. It's a simple scroll page, designed according to the latest design guidelines, with basic info and presentation of all three platforms (Patient Access, Care Manager and Booking system). The page is public and as such available to anyone, whereas the connected platforms can only be accessed with a username and password (< registration and login form covered by IdP).

The solution supports

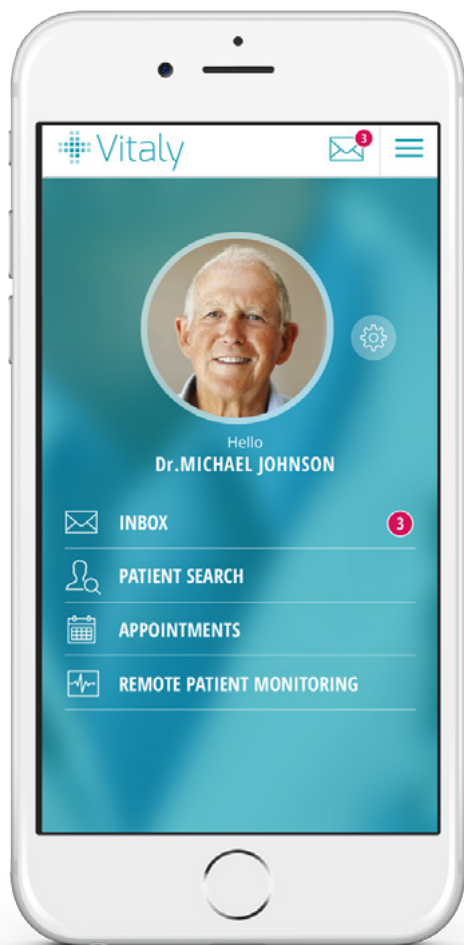
- **Secure interoperable integrations**
 - **International standards compliancy**
 - **SSO support across different technologies**
 - **IdP integration**
 - **Standard IHE profiles**
 - **Enterprise open source technologies**
 - **Modular configuration**
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Styleguide

Aiming to ensure a uniform look and feel of all connected platforms, we created a styleguide which serves as a reference source as it groups the approved design elements and coding guidelines (following the Twitter Bootstrap), all compliant with the clients identity. Apart from providing consistent appearance, this ready-to-use approach is also time and cost efficient for all the involved project partners.

Implementation Methodology

We followed the classical waterfall approach where a project is split into several sequential phases. The biggest focus was placed on the analytical phase, the most demanding being the integration part with external systems, combining different project partners and their solutions with ours, and preparing entire project documentation (product backlog, functional and technical specifications, QA protocol and test cases). The development phase took less time than originally planned, which is undoubtedly the result of a well established project basis. Proceeding with the testing and quality assurance we finally launched an integrated solution that guarantees a rich user experience and responds to patient's needs.



Future extensions and upgrades

Combining all important factors that were previously separate, is the goal we achieved with using a collaborative health portal platform. Paperwork is reduced, efficiency increased and care results improved when smart technology such as the Vitaly health portal are implemented. We're expecting positive results from the end users – care givers on the one hand and care takers on the other, especially from the organizational and administrative point of view. Thus, the Client is also interested in developing a companion native mobile application which would enhance the experience even further. Another possible upgrade could also be extension to other markets.

Working on all aspects of health

The portal platform can also be taken further. As the shift in medicine is gradually moving toward disease prevention, wellness and monitoring a person's (not yet a patient's) health and keeping them healthy, the portal acts as a platform for dietitians, personal trainers and other individuals invested in the person's health. This information is then also available to medical experts, such as the person's GP and together they can achieve the best results.



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During the development of our own products we established a proactive relationship with technology partners who operate throughout the EMEA region, such as: Cisco Systems, Oracle, Liferay etc.

For more information about our company and references don't hesitate to contact us at

E: info@parsek.com
T: +386 (0)1 479 04 80
www.parsek.com

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platforms of the future together*

