

MonDossierMedical.ch – The Personal Health Record for Every Geneva Citizen

Aurélie ROSEMBERG¹ Adian SCHMID² and Olivier PLAUT¹

¹*Direction générale de la santé – Etat de Genève*

²*eHealth Suisse Bern*

Abstract. MonDossierMedical.ch is a project led by the canton of Geneva, making it possible for every patient to access his own electronic health record (EHR) and to share the medical files with his doctors. It was introduced across the canton in mid-2013, and provided to all patients free of charge. It is based on the first Swiss-wide eHealth-compliant pilot project "e-toile". The canton of Geneva developed "e-toile" as a public-private partnership together with Swiss Post and it was launched in 2011 in some of the canton's municipalities. Back then, Geneva's EHR represented the first Swiss attempt to link all healthcare professionals in the treatment chain. Today, it serves more than 6,000 patients and 400 physicians. This number is growing regularly, as well as the health care institutions (private hospitals, labs) joining the community. The project fits into the national strategy of Switzerland in establishing a national EHR by linking regional implementations like MonDossierMedical.

Keywords. MonDossierMedical.ch, Electronic Health Record EHR, e-health, Geneva, Shared Care Plan, Shared Medication List

1. Introduction

"MonDossierMedical.ch" project, originally named e-Toile, was born in Geneva in a context of public health costs higher than the national average and development of information technologies. Following issues initiated a thorough reflection:

- Placing the patient at the center of his medical care ("patient empowerment")
- Ensuring the quality of care and avoiding errors
- Ensuring data security
- Improving the efficiency and thus meeting up with the challenges of an aging population.

This project started in 1998. In 2001, the foundation IRIS-GENEVA was created to enable the networking of all health partners. This foundation is now in charge of monitoring the network and promotes its use. This pioneering project required a legal basis, then non-existent in Switzerland. In 2008, the law on the EHR community network was adopted in Geneva, entering into force in 2009. The Swiss federal law on the patient's EHR is forecast to be ready nearly by 2018.

¹ Olivier PLAUT. Direction générale de la santé – Rue Adrien-Lachenal 8 – 1207 Genève – Switzerland. - olivier.plaut@etat.ge.ch – www.mondossiermedical.ch

To realize the sharing of medical information according to the patient's will, a concept of technical architecture and access rules has been developed. It is now being implemented throughout the canton as "MonDossierMedical.ch". The project is conducted by the Directorate General for Health of the Canton of Geneva.

Access to online medical record is free of charge. Patients have then an easy access to medical documents from the University Hospitals of Geneva (HUG), home care, connected pharmacies and laboratories. The patient gives access rights to his attending physicians, pharmacist or specialists.

2. Obstacles and opportunities

Geneva is pioneering this approach in Switzerland that allows physicians and other stakeholders to access, with the patient's permission, to essential information for its management. Conducting this type of project requires overcoming technical and "business" obstacles.

From a technical point of view, after a pilot phase, the system was stabilized to allow wider deployment with improved access times to medical documents.

It was also necessary to simplify the connection process for all users by replacing smart card connection with more modern technologies. It is now possible to connect to MonDossierMedical.ch with a user name, a password and a single-use code received via SMS, known as mTan. The records can now securely be accessed from any computer without any specific hard or software installation.

From a business point of view, the challenge is now to implement greater use of MonDossierMedical.ch for information sharing in the Geneva care network. For this purpose we are working on the management of complex patients with the implementation of a shared care plan and a shared medication list. Those issues require interoperability between the tools and avoiding double data entries.

We will also target more precisely population groups, according to age, conditions, interests, and provide services that are of particular interest to develop connections.

3. Present and perspectives

Registration of patients and professionals to MonDossierMedical.ch is no longer an anecdote. The platform use is today concrete and registrations increase regularly with more than 600 new patients per month - a total of more than 8,000 active records - and over 450 physicians connected.

We also work with various structures such as associations, municipalities, etc. to promote the use of "MonDossierMedical.ch". Public sessions are held to present "MonDossierMedical.ch" and to register interested citizens. All information is available on our website.

Targeted actions are also conducted in various locations among HUG: enrollment is proposed at the main hospital, at the pediatric and geriatric hospitals, and at the emergency room, while patients are waiting, to help them pass the time. Patients doing administrative admission at the hospital have the possibility to be registered in MonDossierMedical.ch at the same time.

As the network of involved partners is extending, we now hope family physicians, private clinics, and laboratories to join the community.

The 2016 outlook is the improvement of complex patients care in the care network with the commissioning of a shared medication list, the upload of documents by the patient himself, and the pilot project of the shared care plan in partnership with PRISM² and imad³.

4. Added value tools

The **shared care plan** is a dashboard showing on one side the medical information provided by doctors and on the other side observations made by nurses who take care of the patient at home. This tool is primarily intended for complex patients still living at home, with polymorbidities and several health professionals taking care of. The need of regular information transmission between all those professionals is today mainly fulfilled by numerous faxes. An interactive dashboard will allow all players to share information and to access up-to-date data structured according to their activity and needs.

The objective of the **shared medication list** is to perform medication reconciliation in order to get a picture as comprehensive as possible of the drugs taken by the patient. This view allows the physician to have full vision and to avoid prescribing dual or interfering drugs.

Detection tools to prevent adverse effects in connection with other drugs or the patient's condition (weight, age, pregnancy, allergies, etc.) will also be introduced gradually.

The **shared medication list** also allows to easily produce and print a treatment card, sort of "menu" for the patient showing him which dose to take, at what time, and with the reason of the treatment. An image of the tablet will be added for people having difficulties to recognize the different drugs.

This essential tool in the continuity of care is currently only available in "MonDossierMedical.ch". There are however many other prescription systems: HUG, a number of private doctors, clinics and pharmacies all have their own prescribing tools. A priority task in 2016 is to allow those different software's to communicate in order to have a complete shared medication list while avoiding dual entries. Among other things, pharmacists will be able to reprint the patient's treatment card with updated information, which may be different, i.e. in case of a generic substitution.

The project in Geneva is the most advanced implementation of its kind in Switzerland. It is also in line with recommendations that are the basis for the future national EHR. In 2016 the Swiss parliament passed a national law that will make it possible to link regional implementations like MonDossierMedical with similar projects in other cantons. Starting in 2017 every regional EHR that will be part of the future Swiss "circle of trust" has to pass a process of certification to guarantee common rules and interoperability. By this stepwise approach Switzerland wants to establish a nationwide EHR-network that makes it possible for patients to give their health professionals access to relevant health information – regardless of time or location in Switzerland.

² PRISM: Promotion des réseaux intégrés des soins aux malades - www.prism-ge.ch

³ imad: Institution genevoise de maintien à domicile - www.imad-ge.ch