

# Common Sense as a Key Requirement for Promoting the Electronic Healthcare Record: Two Years of Experience in the Belgian National PROREC Centre.

Dr. W. Ceusters

*President of PROREC-BE vzw*

*Het Moorhof, Hazenakkerstraat 20, B-9520 Zonnegem, Belgium*

*werner.ceusters@rug.ac.be*

**Abstract.** PROREC-BE vzw is the first national PROREC centre that has been created to promote the use of high quality electronic healthcare records in line with European standards and insights. The mission of the centre is to satisfy the needs of all actors playing in the electronic healthcare record theatre. This is realised by setting up discussion fora and technical groups, and by adhering to common sense principles such as acceptance of each other's competence, looking at responsibilities instead of rights, and preferring win-win over zero-sum games. After two year of working, the Belgian PROREC centre has satisfactorily shown that working along these principles pays off, and is beneficial for all.

## 1. Introduction

The goal of the European PROREC-project is to promote the use of high quality electronic healthcare record systems that allow electronic patient records to be stored, exchanged and consulted in a safe and secure way, without risks for information loss or misunderstanding, and satisfying the requirements of all actors involved such as developers, users, patients and governments. The need for such systems is generally accepted and many parties are working towards solutions. These teams, whether or not university or industry driven, are usually composed of enthusiastic members, each of them having expertise in market understanding, technology, knowledge of standards or user requirements, all being necessary conditions to bring the endeavour to a good end. *Necessary* does however not mean *sufficient*. Expertise in one domain is no guarantee that one understands or accepts the possible conflictory recommendations from others, especially when these recommendations are based on insights from a domain in which own expertise is lacking. Setting priorities, matching user demands with technical possibilities, and building further on what others have achieved so far are equally important key factors for success, but are also less often implemented satisfactorily. And finally, taking into account the impact that such systems might have on the (re-) organisation of healthcare delivery both at European and national level, many discussions, if not to say willingness to collaborate in discussions, are frequently governed by hidden agendas or political issues. In such a climate, the dream of a common, comprehensive, communicable and secure European healthcare record, risks to remain a dream for ever.

Here however, the national PROREC centres come into play. These centres are specifically created to bring parties involved in the development and use of electronic

healthcare record systems together. They are there to stimulate discussions, to mediate towards common understanding and consensus, and to remove the barriers that prevent fruitful collaboration [1].

In this paper, we describe the activities of PROREC-BE vzw, the first national PROREC centre that has been set up in Belgium as part of the European PROREC project. It has been created in February 1996 and has now reached a status of acceptance by many relevant parties. As a result, it is hoped that Belgium will be the first Member State in which criteria for high quality electronic healthcare record systems are developed and implemented in consensus with all actors in the field.

## **2. The Belgian national PROREC centre**

### *2.1 Mission and objectives*

PROREC-BE vzw has been created as a non-for profit organisation under Belgian law. According to the articles of association, and in line with the contract between the PROREC consortium and the Commission of the European Union, its mission is to promote the use of high quality electronic healthcare records in Belgium, to participate in the discussions around the development of a “Common European Electronic Healthcare Record”, and to assist at a national basis in the development of such a “Common European Electronic Healthcare Record”. Along this mission, the main objectives of the foundation are: 1) to collect, study and disseminate information related to electronic healthcare records from and towards all interested parties, 2) to give advice regarding the use, implementation and adoption of high quality electronic healthcare records in Europe in general, and Belgium in particular, 3) to initiate, monitor and co-ordinate the development of criteria to which high quality electronic healthcare records have to adhere to in order to be compliant with what should be understood by the Common European Electronic Healthcare Record and 4) to initiate, monitor and co-ordinate the development of procedures towards the certification and accreditation of electronic healthcare record systems.

### *2.2 Organisational structure*

Currently, activities within PROREC-BE vzw are mainly organised around “forums” (Fig. 1). A forum is a discussion platform for one particular type of actor in the field of healthcare informatics. Up to now, four different forums of have been created: the Developers Forum (13/06/96), the Flemish Hospital Forum (23/10/96), the French speaking General Practitioners Forum (27/09/97) and the French speaking Hospital Forum (08/01/98). Negotiations related to the creation of a Flemish GP forum, and a forum for the Pharmaceutical Industry, are already going on.

The main objective of any particular forum is to reach consensus on priorities and objectives within that particular group. Only this is a solid basis to reach consensus over different actors. The meetings are chaired by a convenor whose main task is to disseminate information coming from other fora or relevant groups and initiatives outside Prorec, and to mediate discussions without taking positions him- or herself.

The foundation is managed by a daily management board created out of the original founders. A more formal Board of Administrators is created as well in which also representatives from the various forums have a seat. Its main task is to outline priorities going beyond the responsibilities of each individual forum. In addition, proper allocation of resources is also discussed in these management boards. Only full members of PROREC-BE vzw are entitled to have a seat in the management board. Forum meetings are however open to non-members as well.

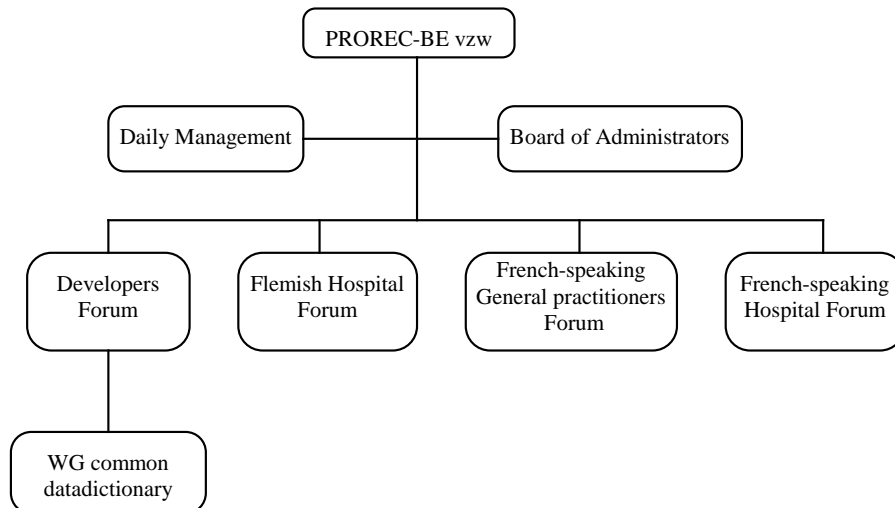


Figure 1: Current organisational structure of PROREC-BE vzw

### 2.3 Resources

In the beginning, PROREC-BE vzw was financed through funding from the European Commission in the PROREC project. Gradually on, additional resources became available. A first source are the membership fees. Depending on the size and nature of the organisation subscribing PROREC-BE vzw membership, annual fees range from 125 ECU (GP associations, small hospitals, industrial affiliates) over 400 ECU (large hospitals, small SMEs servicing GPs) up to a current maximum of 1.250 ECU for large SMEs active in the hospital sector. Non-members participating in vendor- or hospital meetings pay an attendance fee of 50 ECU, while for GP meetings this is limited to 12 ECU.

Being recognised as a trustworthy party with a large network of relevant contacts behind it, additional resources became available through participation in national projects on standardisation funded by the Belgian government, or by delivering consultancy services.

### 3. Developers forum

The developers forum was created the first. There were many good reasons to do so. About 80 companies in Belgium are developing electronic healthcare record systems or are close connected to the development or use of such systems by delivering services or enabling technologies. A large number of them, usually small SMEs with 2 up to 10 employees, are active on the GP and/or medical specialist market. The number of GPs in Belgium being about 15.000, it is easy to understand that competition is extremely high and revenues rather small. The market leader has

an installed base of not more than 17% of the overall installed base, the latter being in the beginning of '96 about 50% of the potential market.

Vendors and developers in Belgium recognised already some years ago the need for closer collaboration in areas where competition does not add to the overall quality of their products. Several attempts to set up an industrial forum failed nevertheless, because taking the lead in such an endeavour was itself already recognised as being a commercial advantage that other companies would not accept easily. Only the arrival of a neutral party, in casu PROREC-BE vzw, was able to break this deadlock.

Vendors and developers now are perfectly aware of the strong and weak points of their own products as well as those of the others. In addition, quite a number of products currently available are meeting diverse demands, and are more complementary than just competitive. A common incentive for the vendors is to exploit this complementarity by offering users better solutions through the integration of particular elements of the available products. However, through a serious lack of standards, collaboration amongst vendors and developers in Belgium was so far difficult to achieve. Proposed standards exist only on paper and are yet to be implemented. At the other hand, several other parties are trying to come out with proposals for standards that are particularly suited to their own needs, but that not necessarily are beneficial for everybody. Hence, there was a perceived need by the vendors to come out with proposals themselves, better than just waiting to have them imposed by others. The PROREC developers forum has been mandated by the vendors to act as a catalyst to make this desire come true.

The lack of standards being the most important issue to be addressed by the PROREC developers forum, realising an improved image of the vendors towards the other parties, in particular the government, has been identified as a second objective. Nor customers, nor the government seem to be aware of the extremely difficult conditions under which the healthcare telematics industry in Belgium has to operate.

Another objective of the forum is to assist in the development of accreditation and certification procedures for medical software. The principle has been adopted that in a short timeframe minimal criteria should be proposed, in consensus with all vendors active in PROREC-BE vzw.

Ten meetings having been organised so far, the developers forum is undoubtedly at cruising speed and some true achievements are already there: a conceptual model for the exchange of electronic healthcare records, a proposal to organise the development of a national coding system for laboratory procedures, and participation in a ministerial working group defining quality criteria for electronic healthcare record systems. Even a special Technical Working Group has been set up to come to a common datadictionary for electronic healthcare records. Other items are still being discussed such as a proposal towards the Ministry of Health to harmonise the ICD-procedure classification with the national act reimbursement classification. Participation in meetings is very high, and many companies subscribed membership. The total installed base of PROREC-BE vzw's industrial members is estimated to be 75%. Participating non-members account for an additional 15%.

#### **4. Hospital fora**

During the first meeting of the hospital forum, participants requested the forum to be a platform for information dissemination in an objective and neutral way. Time and resources are not readily available in the hospital sector, and where possible, the

hospital forum should take advantage of the developments in other PROREC fora. Although the hospital forum is to be seen as a true “user” forum, it was agreed upon that hospitals could be represented in the forum through the developers with whom they collaborate, but only on the basis of a written mandate from that hospital.

As it appears to be that the demand for electronic healthcare records in many Belgian hospitals mostly comes from physicians (and more recently also from nurses), and because hospital management is not often able to respond quickly to this demand, individual physicians and departments within the hospital tend to start the installation of separate systems. A second objective of the hospital forum is to make hospital staff aware of the pro’s and con’s of such developments, and to inform the hospital community on the danger of creating “isles of information”.

Information dissemination on available and forthcoming healthcare telematics standards applicable in the hospital environment, was put forward as the third major objective.

Because there are about 300 hospitals in Belgium, far too many to allow active participation in one single forum, it was decided to create two separate ones for each of the Flemish and Dutch speaking community. This also resolved the linguistic barriers that even in the developers forum sometimes turn out to have counter productive effects. In addition, this situation leaves room for different priorities to be set in both fora. It indeed turned out that in the north of Belgium, the electronic healthcare record was considered to be more important than in the south, where healthcare telematics was given more weight. This probably has to do with the success of MediBRIDGE NV, a company that is market leader for healthcare telematics services in Flanders, with a less important penetration in Wallony where the existence of many local and regional servers prevents wide communication between institutions and GPs.

## **5. General Practitioners fora**

The general practitioners fora turned out to be the most difficult to set up, and this for many reasons.

First there is the political climate. Many actors consider the electronic healthcare record as a powerful and multifunctional weapon for realising objectives that themselves nothing have to do with faithful registration of healthcare data. If the government “controls” electronic healthcare record data, it could use these data to control GPs. When cost containment studies are based upon it, this might result in political decisions that have a negative impact on the GP’s income. When the GP becomes the “manager” of the healthcare record, this might have an impact on patient referral to hospitals and probably will also diminish the number of patients seeking direct advice from medical specialists. This of course will not be appreciated by medical specialists. These are only a few examples showing the unfortunate relationships between politics and technology development in the area of healthcare informatics.

Second, there is a serious lack of education related to medical record keeping in general, and medical informatics in particular. This is not only the case for GPs, but for medical specialists as well. For GPs, the lack of understanding is however more critical. Many of them are not acquainted with the POMR and episode centred registration paradigm, yet it is proposed by GP academic centres (and soon also by the government) as a gold standard. Even more dramatic is the mixing up of technical and

functional issues. Because functionally, Belgian GPs will be assigned the responsibility to manage the electronic data of their patients, many (even academics) assume that all these data physically have to reside in the GPs computer system and they vigorously reject the concept of the “virtual record” on the basis of misunderstanding. Also, the conceptual architecture of the electronic healthcare record is often mixed up with the technical architecture or physical data structure of electronic healthcare record systems. This often leads to situations where GP associations want to dictate how systems have to be built, instead of what they have to perform. Until recently (and some GP associations still do) they refused advice from industry using false arguments such as “scientific unfoundedness” of commercial solutions. Ironically, there are more scientific publications on the electronic healthcare record produced by commercial persons in Belgium, than by researchers from academic centres for family medicine. Also participation of such centres in international standardisation efforts was up to now disappointingly low.

In such a climate, it is of course extremely difficult to mediate for a global vision. For the French speaking GP associations, the “psychological” problems related to multidisciplinary collaboration as proposed by PROREC, seem now to be resolved and many joined the forum. At the Flemish side, political doubts still persist. We are however convinced that the existence of the French speaking GP forum will make Flanders to move in the same direction.

## **6. PROREC-BE vzw and the government**

From the beginning, informal, and later on also formal relationships have been maintained with the government. In September 1996, PROREC-BE vzw was given a mandate by Minister Colla to conduct a nation-wide inventory on the desired involvement of relevant actors in the definition of quality criteria for electronic healthcare record systems in Belgium. The results have been submitted in February 1997. Since then, PROREC-BE vzw also participates in a ministerial working set up to prepare this issue. Currently, PROREC-BE vzw is considered by the Ministry of Health to be the prime candidate as a forum for discussion, mediation, and information dissemination and collection on matters relating to the electronic healthcare record. While the exact nature of the mandate is still being discussed, logistic support is already given by the Ministry for the GP forum.

## **7. Working principles**

The electronic healthcare record - how passionate discussions might be - is not a matter of religion. The various actors all have their own ideas, demands and requirements. Within one group of actors, e.g. vendors or users, it is even not simple to obtain consensus, let alone amongst different groups. In Belgium, the PROREC approach to this issue is both psychological and pragmatic, and based on the following principles: 1) think in terms of responsibilities instead of rights and interests, 2) accept the competence of others in their particular domain, 3) don't underestimate the own shortcomings in other actors' domains, 4) start with the development of consensus in areas where most competence is available, and 5) prefer win-win situations over zero-sum games.

Of course, PROREC-BE vzw adheres to all the criteria for national PROREC centres that have been defined in the course of the PROREC project [2]. These criteria

are: independence from any actor, being recognised as a trustworthy party, having deep understanding of the domain and the actors playing in it, enjoy adequate logistic support, ensure a low contact barrier and work according to a precise plan.

## **8. Conclusion and recommendations**

The critical success factors for any national PROREC centre are common sense at the one hand, and the ability to listen at the other hand. Experience in Belgium shows that creating a national PROREC centre is a delicate, if not to say hazardous enterprise that nevertheless can be brought to a good end. Taking the lead in such an endeavour automatically will conflict with the intention of at least one player - and usually more - claiming that right for himself on political, moral, ethical, scientific or whatever grounds. It must be understood from the very beginning that he or she initiating a national PROREC centre by no means is entitled to represent whom- or whatever except on the basis of an explicit mandate given by the centre's members. Also that initiating a centre does not mean "be the big boss". All his moves must be dictated by the members of the centre, and strictly in line with the consensus being achieved so far.

At the other hand, PROREC centres should be self confident, making other parties clear that the centre's policies are made by the members only. If a party, be it academic centre, professional organisation, vendor or whatever actor wants to have a serious impact on the decision making process, then there is only one solution: he has to join the club. Still, of course, the top principles apply: common sense and listening. Diplomatic skills come in very handy when "important" parties are to be convinced to cooperate. If this turns out to be difficult, then perhaps that particular party might not be important at all. Does the notion of "importance" not implies "valuable" ? And isn't it indeed difficult to see how a party that does not accept PROREC's general principles based on altruism, common understanding, acceptance of each other's competence and complementarity, can be of any value in a consensus building exercise ?

After two years of work, quite a lot has been achieved in Belgium. It wasn't always easy, and still, some obstacles have to be taken. Fruitful discussions and collaboration amongst various parties are now common place. Specific moves from one group of actors are not anymore judged by the others on the basis of possible hidden agendas, but are seen in the light of that common dream: the wide spread use of high quality electronic healthcare record systems that allow electronic patient records to be stored, exchanged and consulted in a safe and secure way, without risks for information loss or misunderstanding, and satisfying the requirements of all actors in the field.

## **9. References**

- [1] Ceusters W, J. Reig, B. Frandji, B. Dodd, L. Schilders, P. Hurlen. Managed Convergence Towards High Quality Electronic Healthcare Records in Europe: The PROREC Initiative. TEPR'96, San Diego, Proceedings on CD-ROM, 16/05/96.
- [2] PROREC Consortium. Deliverable D6.1: PROREC's recommendations for national PROREC centres, 21/04/97.