

Q-REC

European Quality Labelling and Certification of Electronic Health Record systems

Q-REC is a Specific Support Action and its main objective is to develop formal methods and to create a mechanism for the quality labelling and certification of Electronic Health Record systems in Europe, in primary- and in acute hospital-care settings.

Objectives of the project

The main objective of **Q-REC** is to create an efficient, credible and sustainable mechanism for the certification of Electronic Health Record (EHR) systems in Europe by addressing mainly:

1. EHR Systems Quality Labelling and Certification Development, thereby:

- producing a State of the Art Report on EHR Certification Schemas as already implemented in at least three European countries;
- performing a Pan European Requirements Assay;
- proposing a profiling and classification system for EHRs to be certified;
- harmonising the EHR-Certification Procedures at a European level;
- drafting the Certification Guidelines and Procedures (inc. Legal);
- planning future Pilot Implementations.

2. Resources for EHR Interoperability, including:

- the inventory of Conformance Criteria and Guidance Documents for obtaining EHR Certification;
- an inventory and guidelines for EHR Archetypes;
- the registration of Coding Schemes in Europe (as mandated by CEN/TC 251);
- an inventory of existing and relevant EHR standards;
- an inventory of XML schemas and Open Source components for EHRs.

3. Benchmarking Services :

1. defining the Formal Test Plans for EHR Certification;
2. preparing the Business Plan for EHR Certification related Services.

Project Description

The EHR has evolved to become centre-stage in the national health informatics strategies in Europe. There is a need for interoperability standards that can permit clinical computer systems to share health record data whilst preserving faithfully the clinical meaning of the individual authored contributions.

The structural organisation of the EHR needs to be appropriate to the needs of clinicians. Flexibility of data entry and support of narratives are major reasons for the retention of paper records by many clinicians. Achieving the optimum balance between structured, systematised record-keeping and holistic narrative is difficult, and the EHR must not be prescriptive about this: it needs to accommodate both. An EHR system must be underpinned by a common terminology to express clinical content that can accommodate such freedom of expression, whilst supporting the need for structured and semistructured interpretation of each entry.

A vast number of such requirements relate to the applications and systems that will capture EHR data from clinicians, carry out processing on that data including decision

support, recalls and reminders, and deliver integrated or detailed views of EHR data back to clinicians. It is recognized that this vast field of clinical system design is broader than the conventional EHR concept, which is usually considered more limited in scope to the faithful and interoperable representation of EHR data itself. However, the EHR will grow through data contributions from a wide range of diverse and heterogeneous

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clinical applications, and will also be presented back to clinicians through such applications. It is therefore not possible to separate completely the requirements for quality of EHRs from the clinical systems that manage and interact with them.

Quality labelling and certification of EHR systems will be very instrumental to an accelerated further deployment of interoperable EHRs.

“The general objective of Q-REC is to create an efficient, credible and sustainable mechanism for the certification of EHR systems in Europe”

Having access to comprehensive, interoperable and secure EHRs has been shown to improve quality of care and patient safety.

Voluntary certification of EHR systems is a powerful mechanism to ensure that EHR systems are robust enough. Certification in this context is defined as the procedure and action by which a body duly authorised and recognised as a legitimate provider of this service evaluates and certifies an EHR system as meeting predetermined quality standards. The successful deployment of EHRs certification services will reduce the risk for purchasers and accelerate the adoption of higher quality EHRs.

Expected Results & Impacts

The general objective of **Q-REC** is to create an efficient, credible and sustainable mechanism for the certification of EHR systems in Europe. The core objectives of **Q-REC** will be to define a Model with harmonised guidelines and procedures for EHR systems certification and to incorporate the formal test plans into a Benchmarking Process Manual for quality labelling and certification of EHR systems across Europe. In summary, the main kinds of outputs that will be accumulated through the **Q-REC** work packages are as follows.

- A State of the Art Report on existing EHRs Certification Schemata;
- A Labelling Terminology and Functional Profiles for classification of EHRs to be certified;
- Model Certification Guidelines and Procedures;
- A Benchmarking Services Manual for EHRs Quality Labelling and Certification;
- An Inventory of Resources for EHR Interoperability, with registers of Quality Conformance Criteria, EHR-Archetypes, XML schemes, Health Coding Systems and relevant EHR Standards;
- A fully worked out Business Plan.

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European Quality Labelling and Certification of Electronic Health Record systems (EHRs)

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