The Learning Health System in Europe
24-25 September 2015
Brussels

EuroRec Quality Criteria and Certification of EHR Systems

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Outline

• EuroRec
• Quality labelling and certification of EHRs
• Repository of quality criteria
• Use Tools
The European Institute for Health Records (EuroRec)

Not-for-profit organisation

Organised as a permanent network of national ProRec centres

Main mission is to promote the use of high quality Electronic Health Record systems (EHRs) in Europe

Expertise in Quality Labelling and Certification of EHRs
Quality labelling and certification
Quality labelling and certification

- Certification ≠ testing
- Quality label vs. certificate
- Top down vs. bottom up
Why EHR certification?

- Assure compliance to national rules and standards
- Increase quality of the products through coherent and pre-tested functionality
- Leverage exchange of health (care) related data and interoperability of systems
- Improve patient safety in care
- Have a reliable data source for secondary use
“I am fain to sum up with an urgent appeal for adopting ... some uniform system of publishing the statistical records of hospitals. There is a growing conviction that in all hospitals, even in those which are best conducted, there is a great and unnecessary waste of life ... In attempting to arrive at the truth, I have applied everywhere for information, but in scarcely an instance have I been able to obtain hospital records fit for any purposes of comparison ... If wisely used, these improved statistics would tell us more of the relative value of particular operations and modes of treatment than we have means of ascertaining at present” (Florence Nightingale, Notes on Hospitals, 1863; cited by prof. W. Hersh)
Quality of EHRs and EHR data

• To use EHRs efficiently for clinical research a number of features are needed which are often lacking (e.g. security, confidentiality, trustworthiness, ...)

• Functions are required to ensure e.g. data correctness, completeness, accuracy, ...

Quality assurance is essential

Quality labelling & certification are needed
Repository of Quality Criteria

- +1700 Quality Criteria
- Indexed (+14000 total links indices)
- Validated (25 European Member States)
- Translated (20 languages)
EuroRec Seals

• Validation service against cross-border subsets of quality criteria
  – Seal 1: 20 criteria, minimal set of quality criteria
  – Seal 2: 50 criteria, addressing various essential EHR functions

• EHRCR profile contains research-specific quality criteria in order to certify EHR systems as suitable for use in clinical research

• Creation of new Seals for EHR4CR, EURECA, …
EuroRec Use Tools™

EuroRec
Quality Assessment Suite

The EuroRec Use Tools™ suite enables the licensee to prepare and to manage certification, documentation and procurement of Health IT products in general, actually mostly focused on Electronic Health Record systems.

The EuroRec Use Tools™ are designed for professionals, using the EuroRec Repository, within the limits of the license agreement.

The EuroRec Institute, owner of The EuroRec Use Tools™ and the EuroRec Repository, offers on request consultancy services for starting certification of Health IT products as well as training services for The EuroRec Use Tools™.

For more information contact: services@eurorec.org
Scenario based testing

- Scenario
  - Script 1
    - Crit x
  - Script 2
    - Crit y
  - Script ...
    - Crit z
  - Crit ...

Scenario based testing
Example: script

"Generate discharge report for patient X"

- The software generates the discharge report
- Automatic and manual selection of administrative and clinical data is possible
- Reports can be validated before they are sent
- Validated reports cannot be changed afterwards
EuroRec tools – Composer & Certifier

• Composing “basket” of quality criteria from the repository
• Creating of “certification sets” from a “basket”
**EuroRec tools - Scripter**

- Writing scripts and assigning them to criteria

<table>
<thead>
<tr>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Script content:</strong></td>
</tr>
<tr>
<td>Generate discharge report for patient Y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Default view</strong></th>
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<tr>
<td></td>
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<td>2. (30) The software can read the eID card to retrieve the patient's NISS.</td>
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<td>3. (47d) The software generates the following documents imposed: the nursing termination report (see documentation)</td>
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<tr>
<td>4. (126) The model documents provide automatic and manual selection of administrative and nursing data from the file possible. These data are automatically integrated in the production of the document actually. The completed model documents</td>
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<td>5. (128) The documents created based on models in which the data is integrated automatically, can be adapted and validated before they can be printed or forwarded.</td>
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<td>6. (128bis) The documents prepared are saved per patient and can not be changed after validation. However, it is possible to create new versions.</td>
</tr>
</tbody>
</table>
### EuroRec tools – Building the scenario

**Open patient record**

**Description:**
Log in as user X. Open patient record of patient Y with eID card

**Selected statements:**

- (13) The software distinguishes at least the following roles: administrator, administrative user and clinical user.  
- (30) The software can read the eID card to retrieve the patient’s NISS.

**Report**

**Description:**
Generate discharge report for patient Y

**Selected statements:**

- (47d) The software generates the following documents imposed: the nursing termination report (see documentation)  
- (126) The model documents provide automatic and manual selection of administrative and nursing data from the file possible. These data are automatically integrated in the production of the document actually. The completed model documents  
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Generate discharge report for patient Y

**Statements:**

1. (47d) The software generates the following documents imposed: the nursing termination report (see documentation)  
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News

**Video: The European Institute for Innovation Through Health Data**
Pascal Coorevits of EuroRec discusses the new European Institute for Innovation Through Health Data initiative, which has set itself up as a not-for-profit organisation which aims to enable, accelerate. [read more]
03/09/2013

**Save the Date! Joint Digital Healthcare 2015 Symposium**
Join European, National and Regional policy makers to debate what it really means to use eHealth and mHealth at scale to transform healthcare delivery. [read more]
02/09/2013

**EHTEL Meeting: Paris - France**
On behalf of EHTEL/ELO chair Andreas Grode (gematik, Germany) you are kindly invited to the next meeting of the EHTEL/ELO Network on 30 September and 1 October 2015 (Wednesday and Thursday). [read more]
02/09/2013

**EHR4CR paper - IMIA Yearbook 2015**
EHR4CR paper has been selected as “one of the best articles from the literature in the Clinical Research Informatics domain”, to be published in the 2015 IMIA Yearbook of Medical Informatics.

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[www.eurorec.org](http://www.eurorec.org)
Thank you!

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