

The Learning Health System in Europe

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Brussels



EuroRec Quality Criteria and Certification of EHR Systems

Pascal Coorevits, PhD
Professor of Medical Informatics and Statistics, Ghent University
Vice President Research, EuroRec



Outline

- EuroRec
- Quality labelling and certification of EHRs
- Repository of quality criteria
- Use Tools

The European Institute for Health Records (EuroRec)

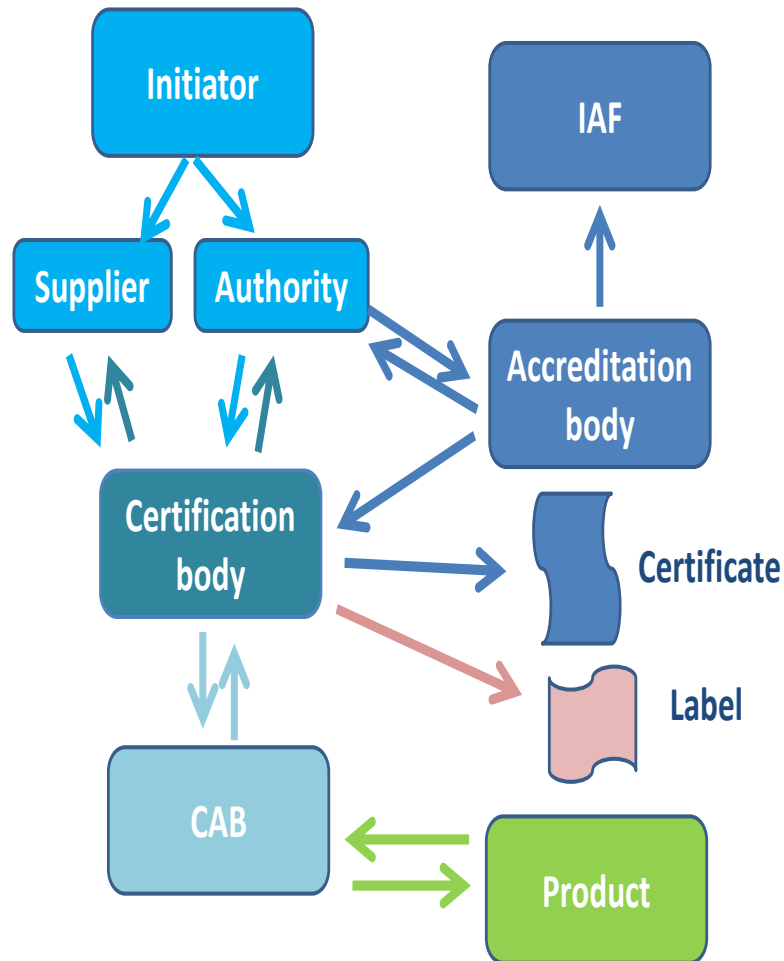
Not-for-profit organisation

Organised as a permanent network of national ProRec centres

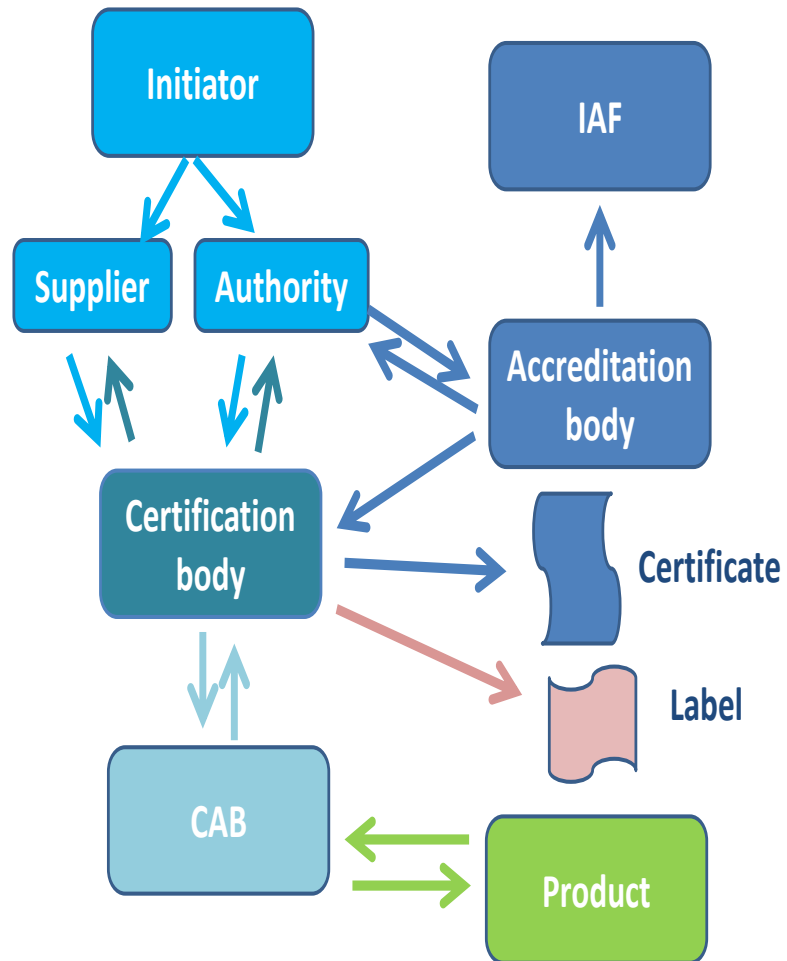
Main mission is to promote the use of high quality Electronic Health Record systems (EHRs) in Europe

Expertise in Quality Labelling and Certification of EHRs

Quality labelling and certification



Quality labelling and certification



- Certification \neq 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

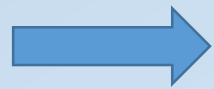
Secondary use of EHR data

*"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)



Business functions
<input type="checkbox"/> A0 EHR data (record) management
<input type="checkbox"/> A00 EHR Data Entry
<input type="checkbox"/> A01 EHR Data Analysis
<input type="checkbox"/> A02 EHR Data Content
<input type="checkbox"/> A03 EHR Data Structuring

Care settings
<input type="checkbox"/> B0 Generic or ubiquitous
<input type="checkbox"/> B00 Cross-bordered network
<input type="checkbox"/> B01 Regional healthcare network (specific distribution)
<input type="checkbox"/> B02 Virtual or tele-health
<input type="checkbox"/> B03 Personal health

Component Types
<input type="checkbox"/> C0 EHR functional component
<input type="checkbox"/> C1 EHR infrastructure component
<input type="checkbox"/> C10 EHR Interoperability component
<input type="checkbox"/> C11 Security management component
<input type="checkbox"/> C2 Knowledge resources

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



- EHR4CR 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 Use Tools™

Mr. David Coordinator
Company ABC

Home Admin EuroRec



EuroRec Quality Assessment Suite

- Composer
- Certifier
- Scripter
- Testing

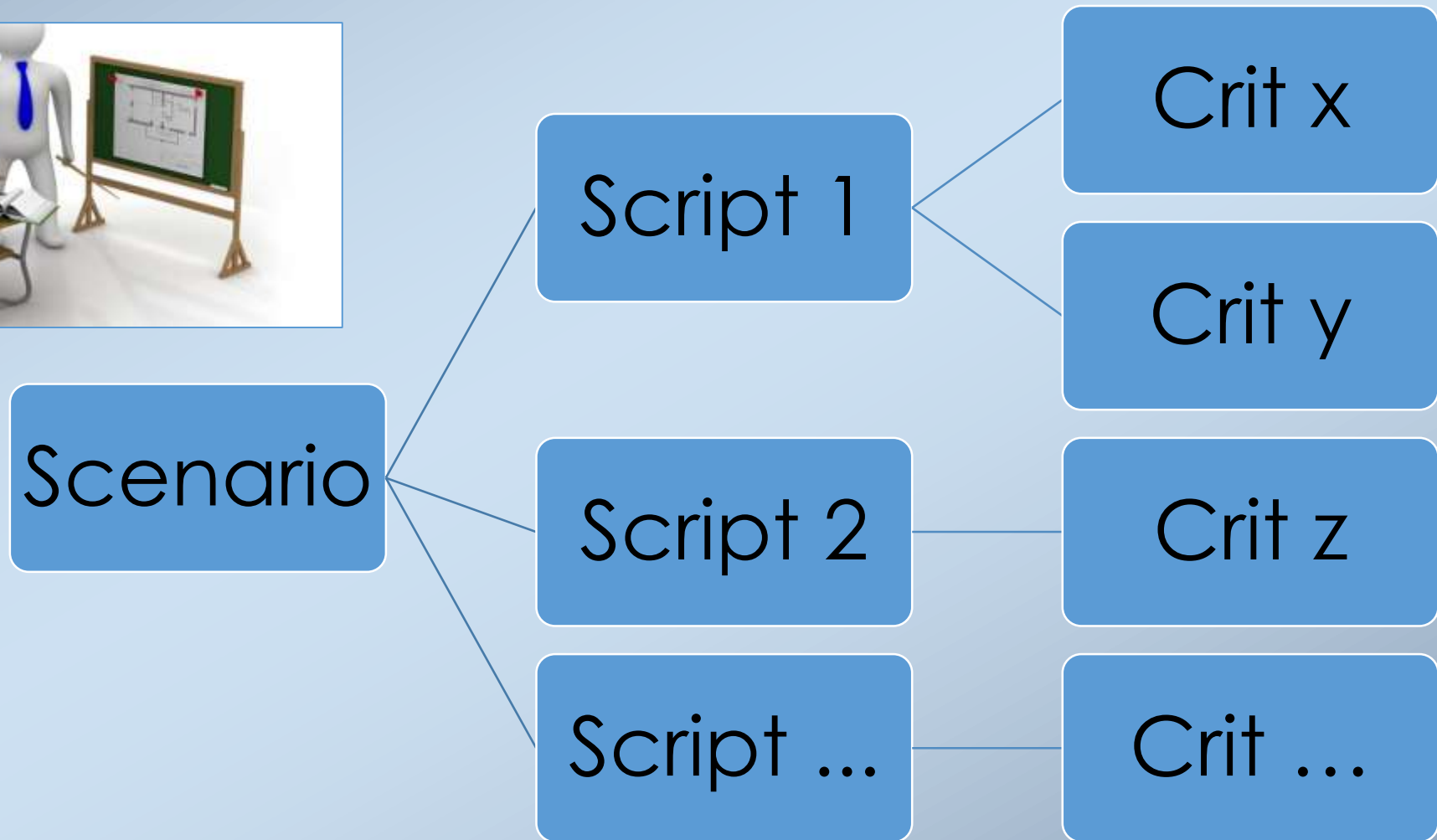
The EuroRec Use Tools™ suite enables the licensee to prepare and to manage certification, documentation and procurement of Health IT products in general, actually mostly focused on Electronic Health Record systems.

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

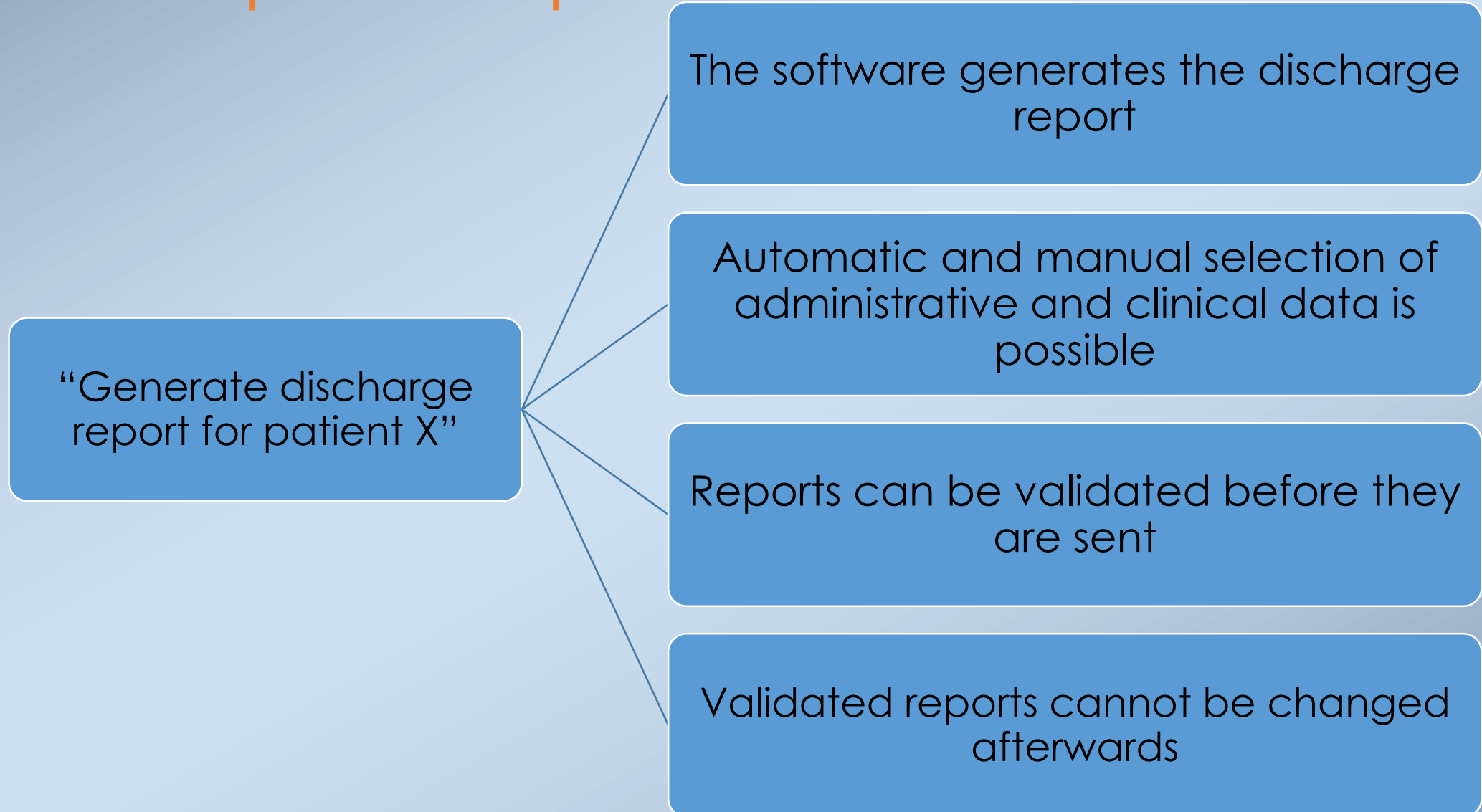
The **EuroRec Institute**, owner of **The EuroRec Use Tools™** and the **EuroRec Repository**, offers on request consultancy services for starting certification of Health IT products as well as training services for **The EuroRec Use Tools™**.

For more information contact: services@eurorec.org

Scenario based testing



Example: script



EuroRec tools – Composer & Certifier

- Composing “basket” of quality criteria from the repository
- Creating of “certification sets” from a “basket”

Create a new view

Name of view: *:

Do you want headings?

Default view

1. GS006092.1 (13) The software distinguishes at least the following roles: administrator, administrative user and clinical user.
2. GS006094.1 (30) The software can read the eID card to retrieve the patient's NISS.
3. GS006095.1 (47d) The software generates the following documents imposed: the nursing termination report (see documentation)
4. GS006147.1 (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
5. GS006148.1 (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.
6. GS006149.1 (128bis) The documents prepared are saved per patient and can not be changed after validation. However, it is possible to create new versions.

EuroRec tools - Scripter

- Writing scripts and assigning them to criteria

Report

Script content:

```
Generate discharge report for patient Y
```

Default view

<input type="checkbox"/>	1. (13) The software distinguishes at least the following roles: administrator, administrative user and clinical user.	Mandatory	1
<input type="checkbox"/>	2. (30) The software can read the eID card to retrieve the patient's NISS.	Mandatory	1
<input checked="" type="checkbox"/>	3. (47d) The software generates the following documents imposed: the nursing termination report (see documentation)	Mandatory	1
<input checked="" type="checkbox"/>	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	Mandatory	1
<input checked="" type="checkbox"/>	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.	Mandatory	1
<input checked="" type="checkbox"/>	6. (128bis) The documents prepared are saved per patient and can not be changed after validation. However, it is possible to create new versions.	Mandatory	1

EuroRec tools – Building the scenario

Open patient record

Description:

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

Save description

Selected statements:

- | | | |
|---|-----------|---|
| (13) The software distinguishes at least the following roles: administrator, administrative user and clinical user. | Mandatory | 1 |
| (30) The software can read the eID card to retrieve the patient's NISS. | Mandatory | 1 |

Report

Description:

Generate discharge report for patient Y


Save description

Selected statements:

- | | | |
|---|-----------|---|
| (47d) The software generates the following documents imposed: the nursing termination report (see documentation) | Mandatory | 1 |
| (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 | Mandatory | 1 |
| (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. | Mandatory | 1 |
| (128bis) The documents prepared are saved per patient and can not be changed after validation. However, it is possible to create new versions. | Mandatory | 1 |

EuroRec tools – Conducting test

Report

Script 

Generate discharge report for patient Y

Statements:

1 (47d) The software generates the following documents imposed: the nursing termination report (see documentation)	Mandatory 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 (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	Mandatory 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 (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.	Mandatory 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 (128bis) The documents prepared are saved per patient and can not be changed after validation. However, it is possible to create new versions.	Mandatory 1	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

+ Comment testee:

www.eurorec.org

EUROREC

*"The EuroRec Institute promotes
the high quality design, implementation and adoption of
Electronic Health Record systems (EHRs) in Europe"*



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[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, accelerat ... [more](#)

03/09/2015

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Join European, National and Regional policy makers to debate what it really means to use eHealth and mHealth at scale to transform healthcare delivery. ... [more](#)

02/09/2015

[ELO-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). ... [more](#)

02/09/2015

[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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**EuroRec
Seal awarded:**

Le Généraliste

on 22/03/2012

S.A. PCSol [BE]

OmniPro

on 22/03/2012

Société MIMS sa [BE]

Pro_Doc

on 16/03/2012

Cegeka Healthcare N.V.
[BE]



Thank you!

Pascal Coorevits



pascal.coorevits@ugent.be



www.linkedin.com/in/pascalcoorevits