

# **Utilization of Nursing Classification Systems for the Depiction of the Nursing Process in Electronic Patient Records in Order to Improve Evidence-Based Nursing**

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# **Aims of utilization nursing process data in electronic health/patient records**

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- EHR/EPR – What is it?
- EHR/EPR – Advantages in general
- EHR/EPR – Why should nurses use it too?
- Aims of using controlled nursing language for the nursing process documentation in EHR/EPR

The Electronic Health Record (EHR) is a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting.

Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports.

The EHR automates and streamlines the clinician's workflow.

(HealthIT.gov, 2014)

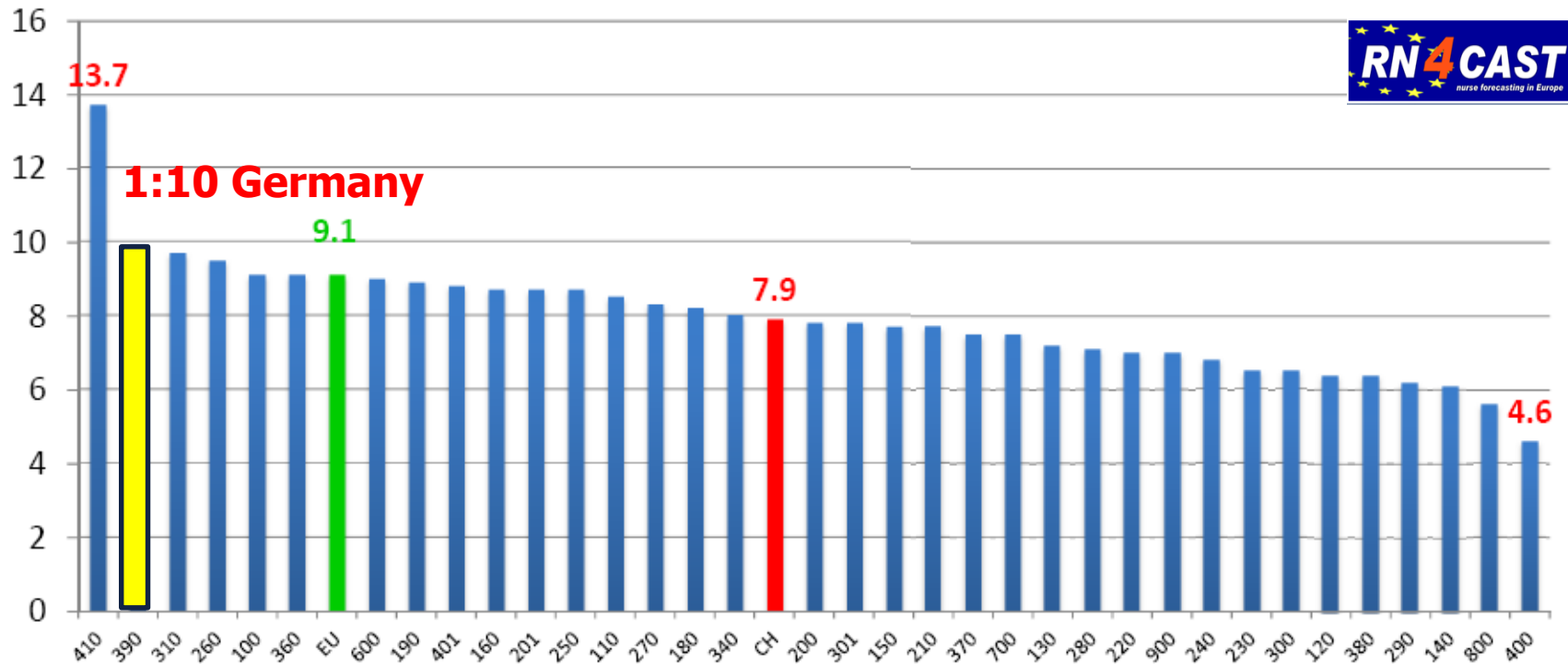
Widespread adoption and meaningful use of health information technology (HIT), electronic health records (EHR) in particular, will play a pivotal role in enabling transformative changes in the US [and other countries] healthcare system in order to achieve broader quality improvement and cost containment goals.

(Blumenthal & Tavenner, 2010)

## Quality improvement and cost containment?

- Approximately 50,000 full-time nursing positions have been eliminated in the hospitals of Germany since 1996  
(Isfort, 2010)
- The work condenses thereby losing its quality...  
(Bartholomeyczik, 2007)
- The nursing staff performance-burden indicator has increased dramatically in recent years by about 25%  
(Isfort, 2010)

## Patient – Nursing staff relation



If the proportion of nursing in the products of a hospital are not adequately demonstrated both on the cost and on the proceed side, the incentive for hospitals might be to go straight here for savings, regardless of the consequences ...

(Bartholomeyczik, 2007)

**EHR/EPR = Solution?**

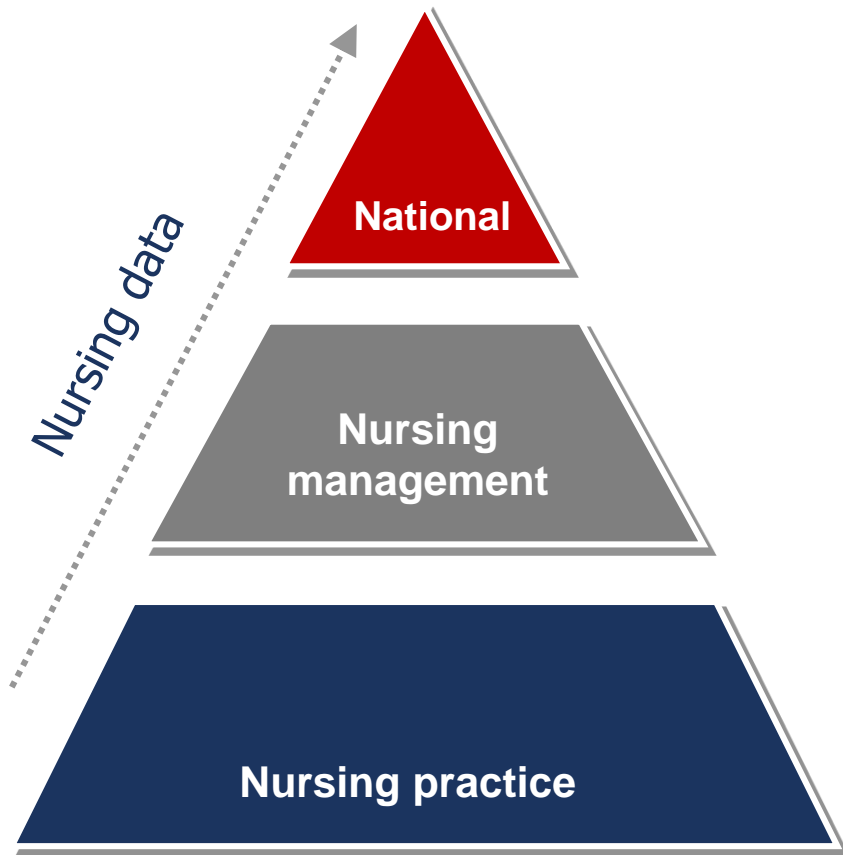


A number of studies have demonstrated the benefits nurses receive when electronic health record (EHR) systems are put in place by hospitals.

Generally, such systems improve

- nursing documentation
- work coordination
- patient safety
- reduce medication errors
- and make nurses feel more satisfied with their work environments (Kutney-Lee & Kelly, 2011)

# EHR/EPR plus Nursing – Aims in general

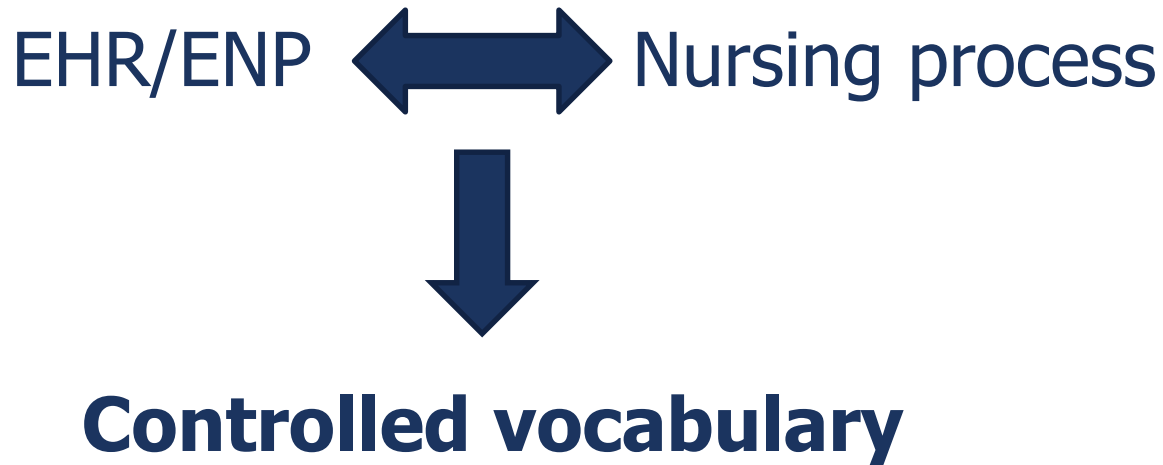


- Basis for policy decisions
  - Shifts in the performance spectrum
  - Support/funding of Outcome research and EBN
- 
- Just and reasonable personal management
  - Data for risk management
  - Data for quality management and marketing
  - Data für outcome measure
- 
- Simplified and more correct nursing documentation
  - Support for decision-making
  - Systematic documentation of patient status over time
  - Support of process, information and communication flow

- 1** Support for decision-making
- 2** Meaningful supportive links between data entry and nursing classification
- 3** Proposition of literature-based interventions relevant to nursing diagnosis
- 4** Plausible references
- 5** Support of the ability to locate nursing diagnosis by indexing

- 6 Utilization of the data for quality management
- 7 Automated patient transition report from the file
- 8 Support of case-based evaluation and outcome measurement
- 9 Departmental filter functions

- 1** Quality indicators (e.g. pressure ulcer, falls ...)
- 2** Quality evaluation through benchmark and quality parameters
- 3** Data for the evaluation of personal utilization
- 4** Data for the calculation of case costs/revenue statistics
- 5** Support of risk management reporting systems
- 6** Promoting the quality of documentation
- 7** Increasing efficiency in documentation
- 8** Optimization of the caring and treatment process through systematic data usage



System of terms, involving, e.g., definitions, hierarchical structure, and cross-references, that is used to index and retrieve a body of literature in a bibliographic, factual, or other database. (NICHSR, 2008)

EHR/ENP ↔ Nursing process



**Nursing classification system**

# Example for a potential solution

- + Personal hygiene/clothing
  - + Self-care deficit **washing**
    - [-] The resident-- is unable to wash independently due to **restricted mobility**
    - [-] The resident-- is unable to carry out personal hygiene independently due to a **hemiplegia/hemiparesis**
    - [-] The resident-- is unable to carry out personal hygiene independently due to **physical restrictions in coping with stress**
    - [-] The resident-- is not allowed to exert himself whilst carrying out **personal hygiene** due to a **reduced cardiac output**, there is a **self-care deficit**
    - [-] The resident-- is **unable to hold bathing utensils for carrying out personal hygiene** due to a **restricted mobility**, a personal hygiene self-care deficit exists
    - [-] The resident-- is unable to organise **personal hygiene independently** due to being **disorientated**
    - [-] The resident-- should avoid movement between the pelvis and torso due to an **injury of the spinal column**, there is a **personal hygiene self-care deficit**
    - [-] The resident-- is **completely dependent on personal hygiene** being carried out due to a **measurable altered consciousness**
    - [-] Der Bewohner-- führt die **Körperwaschung** aufgrund einer **Selbstvernachlässigung** (Self-neglect) nicht adäquat durch
    - [-] The resident-- is unable to **carry out perineal hygiene as accustomed** due to a **wound in the genital area**
    - [-] The resident-- is **unable to carry out personal hygiene self-care independently due to stage of development**
    - [-] The resident-- is unable to wash him/herself independently due to a **sensory integration disorder**
    - [-] The resident's-- **personal hygiene is impaired** [nursing problem without specification]
    - [-] The resident-- is **unable to shower/bathe independently**
  - + Self-care deficit oral hygiene
  - + Self-care deficit hair care
  - + Self-care deficit **dressing**
- + Respiration
- + Nutrition
- + Elimination



# Example for a potential solution

## Nursing diagnoses

## Nursing objectives

## Nursing interventions

The resident-- is unable to carry out personal hygiene independently due to a **hemiplegia/hemiparesis**



- \* Participation during personal hygiene is planned in the nursing care plan according to physical capabilities
- \* Paralyzed extremity(ies) is/are **integrated in pattern of action** during body hygiene
- \* **Body awareness** is activated and stimulated
- \* Feels the own centre of the body
- \* Is aware of **spasticity reducing movement patterns** and is able to use them
- \* **Gradual take-over of body hygiene** in agreed upon intervals
- \* **Motor skills** and **physiological movement routines** are encouraged
- \* Is able to sit **without lateral or supine support** and to **hold the balance**
- \* **Muscle tone** is **regulated** in sequences of movements in every day life
- \* Improvement and **promotion** of the **perceptual organisation**
- \* Is able to **go/leave** to **washroom facilities**
- \* **Accepts whole body** wash by a nurse/primary carer
- \* Feels **actual physical well-being** after nursing activity
- \* Is able to **wash and dry body** independently

- \* Determine **resources and restrictions** systematically
- \* **Include affected body regions** during body hygiene purposefully
- \* **Carry out basal stimulating body wash** according to **Bobath**
- \* **Carry out personal hygiene according to the NDT (Neuro-Developmental Treatment)**
- \* **Promote/train every day competences** in body hygiene **(in hemiplegia)**
- \* Carry out personal hygiene according to the **rehabilitative/other concept**
- \* Carry out **tactual interaction therapy** during body hygiene
- \* **Support finding/leaving washroom facilities**
- \* **Wash whole body**
- \* **Wash parts of the body**
- \* **Prepare basin and personal hygiene articles** for washing

# Example for a potential solution

<u>Nursing diagnoses</u>	<u>Resources</u>	<u>Nursing objectives</u>	<u>Nursing interventions</u>																																																												
<u>Personal hygiene/clothing</u>																																																															
The resident- is unable to carry out personal hygiene independently due to a <b>hemiplegia/hemiparesis</b>	Is willing to carry out personal hygiene independently Is motivated to learn new movement patterns Assesses own self-care skills realistically Shows perseverance to acquire new skills	<b>Body awareness</b> is activated and stimulated  Participation during personal hygiene is planned in the nursing care plan according to physical capabilities	<b>Include affected body regions</b> during body hygiene purposefully <b>0 minutes</b> <b>Number of persons</b> 1 <b>2x daily</b> <b>In the morning In the evening</b>																																																												
<u>Characteristics/Symptom:</u> Is unable to wash him/herself Is unable to wash certain body parts Ignores the affected side Level 3: Moderate impairment in personal hygiene																																																															
<u>Causes/etiologies</u> Cerebral vascular accident																																																															
<table><tr><th colspan="5">Tue 17.06.14</th><th colspan="5">Wed 18.06.14</th><th colspan="5">Thur 19.06.14</th><th colspan="5">Fri 20.06.14</th></tr><tr><td>1</td><td>6</td><td>12</td><td>19</td><td>23</td><td>1</td><td>6</td><td>12</td><td>19</td><td>23</td><td>1</td><td>6</td><td>12</td><td>19</td><td>23</td><td>1</td><td>6</td><td>12</td><td>19</td><td>23</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>				Tue 17.06.14					Wed 18.06.14					Thur 19.06.14					Fri 20.06.14					1	6	12	19	23	1	6	12	19	23	1	6	12	19	23	1	6	12	19	23																				
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The resident- is <b>restricted in carrying out oral hygiene</b> independently	Is able to carry out oral hygiene with guidance and support Willingness to learn something new	<b>Daily dental hygiene is ensured</b>  <b>Oral mucosa is healthy</b>	<b>Carry out assessment of mouth/tooth status</b> <b>10 min.</b> <b>1x daily</b> <b>In the morning</b>																																																												
<u>Characteristics/Symptom:</u> Is unable to use utensils required for dental/oral/denture hygiene Is unable to rinse mouth independently Level 2: Low impairment in mouth/tooth care																																																															
<u>Causes/etiologies</u> Hemiplegia																																																															
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# Thank you for your attention

