

# Implementing SNOMED CT in a Danish region

Making sharable and comparable  
nursing documentation



# INTRODUCTION

- Co-operation pilot project between:
  - The Region of Zealand
  - Their EHR vendor - CSC Scandihealth
  - CareCom – as the terminology consultants
- Problem – the current nursing documentation is not re-useable
- Purpose - to analyse if and how the region could standardize the nursing documentation
- The starting point was to assess the degree of international terminology standards
- SNOMED CT was chosen as the primary reference terminology for the nursing documentation



# A GLOBAL RECOGNIZED PROBLEM

*“Nurses call to Action to  
Realize Sharable,  
Comparable Data”*

(Joice Sensmeier: <http://blog.himss.org/2013/08/16/nurses-call-to-action-to-realize-shareable-comparable-data/>)



# TERMINOLOGY – what is that?

## BLODTRYKSTYPE:

SNOMED CT:  
SCT ConceptID: 271649006 (Observable entity)  
SCT PT: Systolic blood pressure (406507015):  
SCT PT: Systolisk blodtryk (2242131000005115):

SCT ConceptID: 271650006 (Observable entity)  
SCT PT: Diastolic blood pressure (406508013):  
SCT PT: Diastolisk blodtryk (2242141000005111):

Eller:  
LOINC:  
Kode: Term (EN): Term(DA)  
8462-4: Diastolic blood pressure Diastolisk blodtryk  
8480-6: Systolic blood pressure Systolisk blodtryk

## EXTRA DATASET RELATED TO BLOODTRYK: MED PATIENT POSITION:

SCT ConceptID: 163033001  
PT (EN): Lying blood pressure  
PT (DA): blodtryk i liggende stilling  
SCT ConceptID: 163035008  
PT (EN): Sitting blood pressure  
PT (DA): blodtryk i siddende stilling  
SCT ConceptID: 163034007  
PT (EN): Standing blood pressure  
PT (DA): blodtryk i stående stilling

## EXTRA DATASÆT RELATERET TIL SYSTOLISK BLODTRYK MED PATIENT POSITION:

SCT ConceptID: 407556006  
PT (EN): Lying systolic blood pressure  
PT (DA): Systolisk blodtryk i liggende stilling  
SCT ConceptID: 407554009  
PT (EN): Sitting systolic blood pressure  
PT (DA): Systolisk blodtryk i siddende stilling  
SCT ConceptID: 400974009  
PT (EN): Standing systolic blood pressure  
PT (DA): Systolisk blodtryk i stående stilling

## EXTRA DATASÆT RELATERET TIL DIAS BLODTRYK MED PATIENT POSITION:

SCT ConceptID: 407557002  
PT (EN): Lying diastolic blood pressure  
PT (DA): Diastolisk blodtryk i liggende stilling  
SCT ConceptID: 407555005  
PT (EN): Sitting diastolic blood pressure  
PT (DA): Diastolisk blodtryk i siddende stilling  
SCT ConceptID: 400975005  
PT (EN): Standing diastolic blood pressure  
PT (DA): Diastolisk blodtryk i stående stilling

## EXTRA DATASÆT RELATERET TIL BLODTRYK VEDR. LATERALITET:

SKS  
Kode: Term:  
FZSG31 (til) højre  
FZSG32 (til) venstre  
SNOMED CT:  
Kode: Term (EN): Term (DA):  
24028007: Right højre  
7771000: Left venstre  
HL7ActSite:  
Kode: Term (EN): Term (DA):  
RA: Right arm højre arm  
LA: Left arm venstre arm

## BLODTRYKSMÅLING:

SKS:  
SKS KODE: ZZ3160 (pro)  
Term: Blodtryksmåling  
SNOMED CT:  
SCT ConceptID: 46973005 (Procedure)  
PT(EN): Blood pressure taking (78280016)  
PT (DA): Blodtryksmåling (1997751000005116)

## BLODTRYK: (Label)

SKS:  
SKS KODE: FB420 (pro)  
Term: Blodtryk  
SNOMED CT:  
SCT ConceptID: 75367002 (Observable entity)  
SCT PT (EN): Blood pressure (125176019):  
SCT PT (DA): Blodtryk (2009161000005115):

Blood Pressure Measurement

XXXXXX-XXXX Kathrine Hansen

**Blood Pressure:**

Systolic:

Diastolic:

Comment:

Performed: 01/10/13 TIME: 15:10 HCP: Nurse Sam Boyle

HCP Org.: AUH, Obstetric B0142

SAVE

# METHOD

- 17 information areas based on the model "VIPS"
- Data collection of legacy data from the EHR system
- Collection of experience from other data set developments
- Data collection used to identify the new data sets
- 2-(3) data sets for each area
- Tooling: HealthTerm Terminology Platform
- Data sets consists of: Clinical findings, observables and procedures
- Extended the current documentation possibility



# IMPLEMENTATION

- The data sets were implemented in the EHR as search fields and dropdowns based on the data sets
- It was tested in a pre-pilot in 2 wards:
  - A geriatric ward
  - A psychiatric ward
- Evaluated on (using group interviews):
  - Adoption of the new documentation process
  - Was the documentation need covered
  - Recognition of the documentation possibilities/terms



# SCREENSHOT - AREAS

ESD Somatik

Hovedmenu Sygeplejevurdering Indsatsområder Observationer BOS Indgift og udgift ONS/OPUS Notat OPUS Patient Svar TSM OPUS Medicin

Jensen, Karsten  
22.03.2012 10:51  
A/ B5.D / ROSKIA

Sygeplejevurdering [-1 uge] 09:50

Opret og tilgå Indledende sygeplejevurdering (0)

| Udført | Sygeplejevurdering | Udført af medarbejder |
|--------|--------------------|-----------------------|
|--------|--------------------|-----------------------|

Sygeplejevurdering - alle indsatsområder (0)

| Resultattype                               | Dato | Registre |
|--|------|----------|
| Baggrund for henvendelse og identifikation |      |          |
| Isolation                                  |      |          |
| Sociale oplysninger og netværk             |      |          |
| Respiration og cirkulation                 |      |          |
| Bevidsthedsniveau                          |      |          |
| Smerter og sanser                          |      |          |
| Udskillelse af affaldsstoffer              |      |          |
| Ernæring og væske                          |      |          |
| Sprog og tale                              |      |          |
| Funktionsvurdering                         |      |          |
| Hud og slimhinder                          |      |          |
| Psyiske forhold                            |      |          |
| Rusmidler og rygning                       |      |          |
| Søvn og hvile                              |      |          |
| Religiøse og kulturelle faktorer           |      |          |
| Seksualitet                                |      |          |
| Viden og udvikling                         |      |          |
| Overdragelse                               |      |          |

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- Religiøse og kulturelle faktorer
- Seksualitet
- Viden og udvikling
- Overdragelse

Maksimer i nyt vindue Ctrl+X  
Angiv ny søgeperiode

Resume ONS Skabeloner  
Patienter Rekvisitioner

071281-0AA1 Jensen, Karsten

001 AMBULANT / KIRURGISK AMB., ROS  
22.03.2012 10:51  
ROS KIRURGISK AMB.

# SCREENSHOT – DATA SET

ESD Somatik

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22.03.2012 10:51  
ROS KIRURGISK AMB.

**Opret standardplan**

**Funktionsvurdering (Ernæring)**

Starttidspunkt 10.09.2013 11:41 \*Kontakt B5.D 22.03.2012 10:51

**Indikationer (1)**

| Indikation       | Starttidspunkt |
|------------------|----------------|
| Protein S mangel | 29.03.2012     |

**Standardplan**

| Elementer i standardplan  | Status    | Planlagt starttidspunkt | Planlagt sluttidspunkt |
|---|-----------|-------------------------|------------------------|
| <input checked="" type="checkbox"/> Funktionsvurdering (Ernæring)             |           | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Assistance til at spise og drikke         | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Assistance ved egenomsorg: fødeindtagelse | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Madning af patient                        | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Opmuntring til væskeindtagelse            | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Opmuntring til fødeindtagelse             | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Assistance og pleje vedr. sondeernæring   | Ordineret | (10.09.2013 11:41)      |                        |
| <input checked="" type="checkbox"/> Assistance                                | Ordineret | (10.09.2013 11:41)      |                        |

**Ansvar**

| *Besluttet d.    | *Medarbejder          | Enhed | Team |
|------------------|-----------------------|-------|------|
| 10.09.2013 11:41 | CSCTEST CCS CCSintern |       |      |



# CHALLENGES

- Skills in order to develop standardized data
- Adoption the new documentation process
- Recognition of the terms VS concepts
- Adjustments of the data sets between pre-pilot and pilot

# RESULT

- User group interview feedback:
  - Difficult to adopt the new documentation process - needed more training
  - The needed documentation possibilities was available
  - They did recognized most of the terms – but a request to add synonyms
  - They was inspired, curious and educated of the extended data sets
- Big satisfaction among the clinicians in the pre-pilot due to the fact they could se the re-use and understanding outcome of structured data
- Request to the Management Board of a full implementation in the Region of Zeeland
- Implementation is now on-going
- Started with 3 somatic ward's and 2 psychiatric ward's in May 2013
- Herein after one hospital at a time
- The neighbour region - Region H have expressed a interest in adopting the data sets



# CONTRIBUTORS

carecom

CSC

REGION  
SJÆLLAND

*- Vi er til for dig*

# HealthTerm

Close the gaps between your  
business and semantics!

