

# Implementation of SNOMED CT in Dutch hospitals

Dutch Hospital Data

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## introduction

- Dutch Hospital Data (DHD)
  - non-profit organisation founded by NVZ & NFU in 2008
  - national health care data benchmarking for university and general hospitals
  - trusted third party for national registrations
  - maintenance and helpdesk coding systems (ICD-10, CBV, diagnosethesaurus)





## introduction

- continued
  - health care information products, projects and services

"better data, better decision making, better care"





# diagnosethesaurus

- the Dutch reference set of clinical diagnoses
- standardized, point-of-care registration of clinical diagnoses





# background

- lack of national standardized registration of diagnoses
  - free text, ICD-9/10, DBC-code system, local reference set
- possible missaprehension could harm patient safety
- hinders exchange of clinical information, data purposes





# background

- national health care project of the NFU
- point-of-care registration of diagnoses:
  - registration by physicians instead of medical coders
  - one-time registration for multiple use (statistics, financial)





# background

- first version created by UMC Utrecht and UMC Leiden
  - mappings ICD-10, DBC
  - classification terminology
- management and further development to DHD in 2012





# project diagnosethesaurus

- terminology reference set of diagnoses
- based on and matched to SNOMED CT
  - prefered term
  - synonyms
- cross-mapping to ICD-10
- cross-mapping to DBC-codes





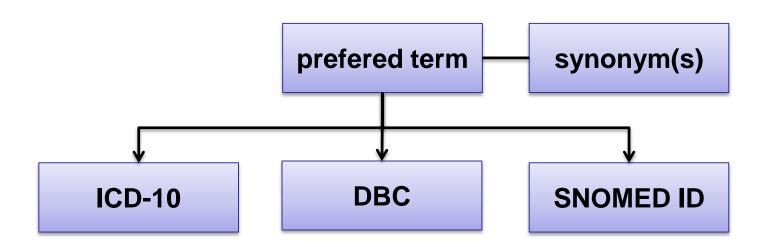
# keygoals

- increasing quality and efficiency of registration
  - one-time registration for multiple use
- usable in everyday practice
  - "doctor friendly", terminology recognised and used by physicians
  - compatible with different EHR-programs used by hospitals





# development







# diagnosethesaurus

- updated content
  - 95% of registered diagnoses in last 5 years from National Medical Registration (LMR)
  - input from existing users
- reference set of 18.000 concepts, but:
  - complete?
  - correct diagnoses?
  - correct mappings?





## validation and authorization

- validation diagnoses and mappings
  - completeness reference set
  - correct diagnoses (content)
  - correct mappings

 cooperation with hospitals and national expert organizations





## method of validation

- DT devided in subsets per specialism
- respective medical specialist organization
- 2 different university hospitals per subset
- differences on specific terms were reevaluated





## authorization

- correct mappings
  - ICD-10
  - DBC codesystem





## methods of authorization

- authorization cross-mappings:
  - ICD-10 mappings authorized by National Institute for Public Health and the Environment (RIVM), Dutch WHO-FIC collaboration centre
  - DBC-codesystem mappings authorized by medical specialist organizations and DBC-Onderhoud





## methods of authorization

- DBC-mappings
  - DT devided in subsets per specialism
  - respective medical specialist organizations evaluated DBC cross-mappings per diagnosis
  - DBC-Onderhoud evaluated the result and advised about alternative possible mappings
  - final authorization by medical specialist organization





# preliminary results

- 14270 active concepts
- validation in progress
  - 4 specialisms done, 22 in progress
- authorization om progress
  - 22 specialisms done, 4 in progress
- processing results of validation and authorization





## preliminary results

- DT concept only gets an authorized status when it's content is validated and mappings are authorized
  - concept status is transparant for users

authorized and validated version expected early 2015





## information

- Dutch Hospital Data (DHD)
  - http://www.dutchhospitaldata.nl
- contact:
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