How to manage the translation of a terminology

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· the National Board of Health, Denmark

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43,098.31 km²

population 5,5 mill
International ↔ National

International:
- Share experiences
- Share knowledge
- Share resources
  - People
  - Technology
- Collaboration
- Translation

National:
- Meet your own needs
- No need to discuss with other countries
- Maintenance process
- Clinical leads have more direct influence on content

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Goal and Objective for the Danish Translation

- **Goal**
  - To provide a national resource of terminology and classifications to the health care sector
    - By a systematic quality assured translation of the major part of SNOMED CT
- **Objective**
  - To have a terminology for use in a structured EHR solution
Concept based translation

1. Read source language term

2. Check the concept’s IS-A relationship(s) + its position in the hierarchy

3. Check the concept’s attribute relationships

4. In case of any doubt, find examples of the source term used in context in order to elucidate the meaning

5. Find equivalent concept and term in target language

6. Write target language term

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Preparing a Translation Project
Preparing a Translation Project

- Workflow design
- Organisation
  - Tender and contract:
    - Translation Service Provider
    - IT development and support
  - Education and maintaining competences
- Necessary translation support
- IT support
- Education
- Resources

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# Workflow

**Planning & Translation preparation**

<table>
<thead>
<tr>
<th>Translation Service Provider (TSP)</th>
<th>Translation</th>
<th>Translation review 1</th>
<th>Translation review 2</th>
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<tbody>
<tr>
<td>Translators</td>
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<td>Translation reviewers</td>
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<tr>
<td>Translation Project Owner (TPO)</td>
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<td>Editors</td>
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</table>

- Accepted translation
- Post translation

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Organisation

A team of specialists

- Medically skilled translators
- Health and social care professionals
- Terminologists

With different roles

- Translation (bilingual)
- Translation review (monolingual)
- Editing (bilingual)
Necessary Translation Support

- National Translation Guideline
  - National and cultural variations
    - Social context, Regime/therapy, Environment or geographical location, Substance and Pharmaceutical/biological product
  - General and specific guidance

- Decision of Principle
  - Build up and maintained along with the progress in the translation work

- Medical books
  - The ones used in teaching Medicine in the country

- Concordance - transparency

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Essentials

- Scalability
  - Number of concepts
  - Translation capacity
  - Review and editorial capacity

- Transparency
  - Sharing and adding knowledge during translation
  - Planning and follow-up

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IT Support

- Browser presenting both specific concept information and a overview
- Support of the translation workflow
  - Subset and breakdown in smaller parts
  - Listings and detailed forms
  - Translation support
    - Translation Guideline
    - Decision of Principles
    - Medical Books
    - Concordance and status
- **Change translated terms after ‘post translation’**
- Manage people and roles
  - Workflow management - change functionality
  - Statistics
Education and Training

- Terminology, classification and health informatics
- Structure and content of SNOMED CT®
- Concept based translation
- Translation process

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Resources

Internal
- 1 project manager
- ½ project coordination
- 1 terminologist
- ½ editorial
- Review:
  - 30 hours per 1000 concepts

External
- Translation company
  - Fixed price per term
- It solution
  - Pay per hour
  - Fixed price

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Running the Translation Project
Running the Translation Project

- Pick the best subsets
- Translation process control
- Editorial processes
- Risk management
- Quality parameters
Strategy for Translating SNOMED CT®

- **Resolve areas not in scope**
- **Hierarchy by Hierarchy / Sub Hierarchy**
  - Clinical Finding
  - Procedures
  - Body Structure
- **Domain specific - Oncology**
  - Tumor findings (clinical finding)
  - Malignant neoplastic disease (clinical finding)
  - Screening for cancer (procedure)
  - Antineoplastic chemotherapy regimen (procedure)
  - Immunotherapy for cancer (procedure)
  - Radiation oncology AND/OR radiotherapy (procedure)
Translation Process Control

- Statistics per translation batch
  - Number of concepts in different translation states

![Translation of SNOMED CT: Status](chart.png)
Translation Process Control

- Statistics per translation batch
  - Number of concepts in specific translation states

### Quality Parameters in %

<table>
<thead>
<tr>
<th></th>
<th>T: Doubt</th>
<th>T: SME</th>
<th>SST: Doubt</th>
<th>SST: Error</th>
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Editorial Processes

- Manage doubts
  - Without involving the Editorial Board
- Editorial Board tasks
  - Essential issues
  - Update Decisions of Principles
- Change post translated concepts
- Communication with IHTSDO
  - Request for change
  - Questions

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Risk management

- Insufficient funding
- Deficient contracts
- Insufficient IT tools
- Insufficient project management
- Insufficient professional and clinical knowledge available
- Insufficient training
  - Concept based translation
  - It tools
- Insufficient translation
- Ambiguities and defects in the source language
- Source language terms with only relevance for certain countries
- Deficient quality assurance
Essentials – Wrap Up

- Scalability – number of concepts to be translated
  - Translation capacity
  - Review and editorial capacity

- Transparency
  - Sharing and Adding knowledge during translation
  - Translation status of the concept

- Quality
  - Consistent translation
  - Planning in advance
  - User interface
Questions
Value for Clinicians
Workflow
Value for Clinicians

- After the translation, it is important that the terminology is validated by health and care providers to ensure that the translation is useful in clinical and social care settings
  - Acceptance and usability
  - Quality and reliability
  - Clinical validation
  - Adding of synonyms
Interoperability?
Reliability

- You rely on a terminology and translation when it can express the concepts and meaning you need
- Clinicians need to be reassured that the terminology and translation cover their need
Results of ‘Clinical Validation’ may be

1. A concept is considered useful in the clinical context and the preferred term is considered adequate
2. Synonyms are proposed
3. A change to the preferred term is proposed
4. A new concept is proposed
5. A concept is not used in practice or should not be used
Challenges

- Funding
- Access to clinicians
- Insufficient training
Questions
Links

- Guidelines for Translation of SNOMED CT®
- Guidelines for Management of Translation of SNOMED CT®
- Experience of the Danish, Swedish and Canadian Release Centres Translating SNOMED CT - Approach, Challenges and Lessons Learned (April, 2009)
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