The IHTSDO Guidance for help with Translation

Jane Howarth, Chair, IHTSDO Translation SIG
2011.10.14. Sydney, Australia
Bienvenue
Bienvenida
Selamat datang
Sutikti
Välkommen
Velkommen
Vitaje
Welcome
Welkom
Willkommen
欢迎
歡迎
The Translation SIG is a helpful “entry point” to the IHTSDO community, where new IHTSDO Members are able to find advice and documented experience to support their translation efforts.

Since the formation of the IHTSDO, 3 countries have completed their translation mandate and others* either have/are completing small pilots, or, are preparing to initiate translation projects in the near future.

At the 2009 IHTSDO meetings in Denmark, one of the pre-conference workshops given was ‘Experience of the Danish, Swedish and Canadian Release Centres Translating SNOMED CT - Approach, Challenges and Lessons Learned’ (April, 2009)


We would like to see this type of work / shared experiences expanded upon by other countries as they undertake translation projects.
Session Overview

This session will:

- Outline the IHTSDO guidance on translating SNOMED CT®, and, on managing the translation process as described in the Guidance documents published by the Translation Special Interest Group (SIG).
- Give an overview to the quality work undertaken by the Translation Quality Assessment Project Group (PG) including an introduction to the quality assurance mechanisms and metrics deemed important to assessing translation quality.
This updated version of the ‘Guidelines for the Translation of SNOMED CT®’ further describes, formulates recommendations, and establishes guidelines on important and common issues relevant to the translation of SNOMED CT®.

The Translation SIG recommends that these general guidelines be used as a template to develop national guidelines prior to, or, upon undertaking a translation project.

In addition to extensive linguistic and terminological guidance, this document includes general recommendations about the steps involved in a translation workflow process, and, information about source documents or references that must be made available to those involved in the translation process.
Guidelines for the Management of Translations of SNOMED CT®
(April 14, 2010)

- This document is a **companion** guideline for use in conjunction with the 'Guidelines for the Translation of SNOMED CT®'.
- It contains recommendations regarding the management of a translation project. The guidelines identify critical steps of the translation project and bring forward best practices from both a qualitative and a cost-effective perspective.
- The guidelines are **not** prescriptive regarding the detailed sequence of the steps in the translation process, since some steps are dependent on how the project is organized locally (within a country).
- Another important purpose of this Guideline is also to help avoid mistakes, and, enable building on existing experiences.
- New (and existing) IHTSDO Members are able to find **advice** and **documented experience** to support their translation efforts and also considerations to take into account for (ongoing) translation maintenance.
The published Guidelines for the Translation of SNOMED CT® and for the Management of Translation are largely informative not normative documents, but they do provide sound advice to those wishing to undertake a target language translation of SNOMED CT®.

This work was undertaken by a previous Project Group (PG) established by the Translation SIG - The Translation Standard Processes PG


It is important to note that parallels may be drawn between the Translation Guidelines and the IHTSDO Editorial policies such as those relating to Terming and Naming Conventions applicable to the International release.

The Translation SIG would prefer to be involved in processes and policy decisions that further improve the (English) source language terminology, e.g. supporting that all new content follow the naming conventions.

The quality of the source language terminology has great impact on the translation quality. Similarly, ongoing and completed SNOMED CT® translation mandates highlight some quality issues and areas for improvement within the International release. ("Catch 22")
This work/deliverables known as “A methodology and toolkit for evaluating SNOMED CT® translation quality” was undertaken by another PG established by the Translation SIG - The Translation Quality Assessment Project Group (TQAPG), chaired by Alejandro Lopez Orsonio.

The existing Translation Guidelines provided the essential material from which was derived a reasonable set of (9) candidate Translation Quality Indicators (to be used for assessing the quality of a target language translation).

The Quality Toolkit work is also considered “companion work” and will now be linked to/referred to in both of the Translation Guidelines.

From the (9) candidate Translation Quality Indicators, a smaller set (~5) are to be considered as mandatory (e.g. concept-based translation). In other words, the quality characteristics denoted in bold italic are “musts” for any SNOMED CT® translation.
A “Checklist” designed for use by a Translation Project Owner, also resulted from this Quality Toolkit work. This will now be incorporated into the Guidelines for Translation of SNOMED CT®.

Additionally, to assist translation project management / administration, certain items in the Checklist may be suitable to be formulated into contractual clauses in agreements between a Translation Project Owner and a Translation Service Provider.

During these meetings, the TQAPG and the Translation SIG reviewed and updated the Quality Toolkit deliverables in preparation for submission to the IHTSDO Standing Committees and Management Board (stay tuned!)

This work is just one example of a practical application of the IHTSDO Quality Assurance Framework being undertaken by IHTSDO WGs ...
The Guidelines … in a bit more detail

1. Guidelines for Translation of SNOMED CT®
2. Guidelines for Management of Translation of SNOMED CT®
Table of Contents

1 Introduction .................................................................................................................................................. 5
   1.1 Purpose and scope of this document ........................................................................................................ 5
   1.1.1 Change requests ................................................................................................................................. 6
   1.1.2 Feedback form ................................................................................................................................... 6
   1.2 Target group .......................................................................................................................................... 6

2 An introduction to terminological principles .............................................................................................. 7
   2.1 Concepts and terms ............................................................................................................................... 8
   2.2 Concept systems ..................................................................................................................................... 9
   2.3 Definitions .............................................................................................................................................. 10

3 SNOMED CT® as a health terminology ......................................................................................................... 11
   3.1 The multi-hierarchical and multi-axial structure of SNOMED CT® ........................................................ 11
   3.2 Fully specified names (FSNs) and Preferred terms (PTs) ..................................................................... 13
   3.3 IHTSDO Style Guides/Editorial policies ................................................................................................. 14
   3.4 SNOMED CT® definitions, attributes and relationships ................................................................. 14
4 Translating SNOMED CT®

4.1 Basic approach ................................................................. 16
  4.1.1 The principle of concept based translation: a key issue! ........................................... 17

4.2 General linguistic principles ...................................................... 18
  4.2.1 What to do with ambiguities in the source language ............................................. 19
  4.2.2 Selecting the best term for the concept ......................................................... 19
  4.2.3 Concept equivalence problems ................................................................. 20
  4.2.4 Translation techniques and syntactical issues ...................................................... 21
  4.2.5 Choice of lexical variants ................................................................. 23

4.3 Specific linguistic principles .................................................. 23
  4.3.1 Organism names (bacteria, viruses, plants, animals, etc.) .................................. 24
  4.3.2 Chemical and biochemical designations, ingredients in medications, enzyme and hormone names ......................................................... 24
  4.3.3 Foreign (loan) words and foreign abbreviations ............................................. 24
  4.3.4 Eponyms ................................................................. 25
  4.3.5 Determinate versus naked form ................................................................. 25
  4.3.6 Plural versus singular ................................................................. 25
  4.3.7 Lower case versus upper case letters ......................................................... 26
  4.3.8 Punctuation, typographical signs, symbols, and digits ...................................... 26
  4.3.9 Abbreviations and measurement units ......................................................... 27
  4.3.10 Hyphens ................................................................. 27
  4.3.11 Other particular issues ................................................................. 28

5 Sources of information ......................................................... 29
6 Translation process and post-translation issues ......................................................... 31
   6.1 Translation ........................................................................................................ 31

Guidelines for Translation of SNOMED CT®

   6.2 Review ........................................................................................................... 31
   6.3 Editing ............................................................................................................ 31
   6.4 Progress monitoring and follow-up ................................................................. 32
   6.5 Post-translation issues .................................................................................... 32
Table of Figures

Figure 1 – The semasiological approach as opposed to the onomasiological approach. ............... 7
Figure 2 – Ogden-Richard's triangle ......................................................................................... 8
Figure 3 – Generic versus partitive concept system.............................................................. 10
Figure 4 - The SNOMED CT® Root Concept and the immediate subordinate concepts .......... 11
Figure 5 - Example of how concepts are arranged in a hierarchy ........................................ 12
Figure 6 - Example of how concepts may have more than one superordinate concept ............ 13
Figure 7 - Example of literal translations performed without an understanding of the underlying meaning................................................................................................................ 17
Figure 8 - Suggested process for translation workflow steps ................................................. 18
Figure 9 - Examples of translation techniques with description of the morpho-syntactical structure of the source language and the target language terms.............................. 22
What’s really important … (1)

- **ALL of it …** but, especially, as mentioned earlier - **Section 4** - the parallels between the IHTSO Editorial Guides applicable to the International release and this document which is applicable to target language translations, and these points …
  - SNOMED CT® is a terminological resource that can be translated!
  - SNOMED CT® is a clinical terminology increasingly guided by ontological principles!
  - While it is not within the scope of the Guidelines to discuss the inconsistencies of the terminology, the core SNOMED CT® terminology is **not perfect** and that for this reason, SNOMED CT’s architecture has been undergoing major changes for quality improvement!
  - Vigilance is called for on the part of the translation team members - **they need to review and analyse the relationships of each concept in order to elucidate the meaning of a term within the terminological context!**
SNOMED CT® is a comprehensive terminology designed to meet the needs of a broad group of health care professionals in a range of settings.

An important aim described in the SNOMED CT User Guide is “to ensure understandability, reproduceability and usability”.

- Therefore, an effort should be made to provide terms that reflect the underlying concepts and ensure that they are not only understandable, but also psychologically acceptable and clinically relevant to the clinician.

- The semantic equivalence of concept representation is of paramount importance.
The basic objective of any SNOMED CT® translation is to provide accurate (“safe”) and unambiguous descriptions of SNOMED CT® concepts in the target language.

Therefore, the principle of **concept-based translation must** be used.

Defining a set of national linguistic guidelines, including syntactical, morphological, and orthographic rules, to support that approach, is also crucial.

The overall approach for the translation process should be one of ongoing, close collaboration between specialists within health and/or informatics and linguists/terminologists.

- Interdisciplinary collaboration is crucial in terminology work (Infoterm 2005).
A translation based solely on linguistic, morphological-syntactical analysis might result in a seemingly correct term which would not adequately represent the concept in question, nor, be used by healthcare professionals. On the other hand, compliance with linguistic, systematic, and orthographic principles is necessary in order to avoid confusion and ensure the practical applicability of the terminology.

In practice, this means that a set of basic principles regarding the morpho-syntactical structure of the terms to secure consistency must be followed, but in the case where serious conflicts with daily clinical language occur, the clinical use should prevail.
Although this Guideline contains numerous examples that support the foregoing points, I’ll leave you with the following examples relating to the risk of performing a literal translation without an understanding of the true underlying meaning … which occurs when a concept-based (onomasiological) approach to translation is not used.

- The translation of “The spirit is willing but the flesh is weak” when translated to an Asian language and then to English yields “The wine is good but the meat has gone bad” … !!!
What’s really important … (6)

- A similar (SNOMED CT) example illustrated in the Guideline is …

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>open reduction of volvulus of cecum</td>
<td>réduction d'un volvulus caecal par voie ouverte [French]</td>
<td>réduction d'un volvulus caecal à ciel ouvert [French]</td>
</tr>
<tr>
<td></td>
<td>= reduction of a volvulus of cecum with open access</td>
<td>= &quot;reduction of a volvulus of cecum in the open air&quot;</td>
</tr>
</tbody>
</table>
The Guidelines … in a bit more detail

1. Guidelines for Translation of SNOMED CT®
2. Guidelines for Management of Translation of SNOMED CT®
TOC: Guidelines for Management of Translation of SNOMED CT®
# TOC: Guidelines for Management of Translation of SNOMED CT®

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Translation preparation</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>3.1 Translation subset selection</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>The translation process</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>4.1 Translation</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>4.2 Translation review</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>4.3 Editing</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>4.4 Progress monitoring and follow-up</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Post-translation issues</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>5.1 Validation of the translation in clinical and social care settings</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>5.2 Maintenance of linguistic guidelines</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>5.3 Maintenance with regard to translation of updated versions of SNOMED CT®</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>5.4 Post-editing</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>5.5 Translation of national concepts into SNOMED CT®-English</td>
<td>18</td>
</tr>
</tbody>
</table>
TOC: Guidelines for Management of Translation of SNOMED CT®

6 Glossary of terms ................................................................................. 19
7 Supporting documents ........................................................................ 20
  7.1 IHTSDO documents ....................................................................... 20
  7.2 National documents ....................................................................... 20
  7.3 ISO/CEN standards ....................................................................... 20
What’s really important …

4 The translation process

The translation process per se is distinguished from the planning activities (section 2), the translation preparation (section 3), and the post translation activities (section 5).

These guidelines identify two major parties involved in the translation process: the translation project owner and the translation service provider. Furthermore, three major steps in the translation process are identified (Figure 1):

- **translation**
- translation review by the translation service provider (review 1)
- translation review by the translation project owner (review 2).

![Diagram of the translation process]

**Figure 1 - overview of the translation process and the parties involved**

The aim of the translation process is to provide a high-quality translation, even in the narrowest specified fields. The three steps are found crucial to achieve the anticipated quality of the translation – particularly the two-step review process. The steps are depicted in the figure above and described in …
What’s really important: Translation

- Ideally, the translation should be carried out by professional translators with a health or social care background and/or health or social care personnel with a professional linguistic background. However, it may be difficult to find a sufficient number of people possessing all these qualifications.

- Alternative models could include having the translation carried out either by authorized translators who have current access to consultants with a health or social care background (i.e. subject matter experts), or health and social care professionals who have been specially trained for the task and who may turn to professional translators for advice.
Experience from existing translation projects indicates that a two-step review improves the quality of the translation.

- The first review is a kind of internal quality check performed by the translation service provider.
- The second review is an external review arranged by the translation project owner.

The competencies of the reviewers may vary, but they are often professional translators or health or social care professionals.

All translated terms should be reviewed by a health or social care professional who has been introduced to the structure of SNOMED CT® as well as to the rules of the linguistic guidelines applicable to the target language.
What’s really important: Translation Review (2)

- Ideally there should be opportunities for reviewers to address questions to subject matter experts.

- The overall purpose of the reviews is to make sure that the preferred term* reflects the underlying concept of the source language, that the term is relevant to the health and social care domain, and that the translation complies with the established linguistic guidelines of the target language.

- The reviewers should also identify matters of principle for resolution by the editorial board.
What’s really important: Editing

- Regardless of whatever translation workflow process is used, an editorial board (or similar expert group) should play a part in the overall process and workflow. The editorial board should be interdisciplinary.
- The board’s major tasks are to issue and maintain the linguistic guidelines and to resolve “difficult cases” and matters of principle based on the linguistic guidelines.
- The editorial board is responsible for the translation quality and they issue the “accepted” terms. This means that the editorial board needs to check that the linguistic guidelines have actually been followed, and – if not – implement the corrections.
The following issues related to the translation process should be monitored and adjusted:

- adjustment of the linguistic guidelines
- adjustment of the resources in the translation processes in order to continuously optimize the process
- workflow statistics
- correction of translations that do not comply with the linguistic guidelines.
The following aspects of the project’s progress should be monitored:

- follow-up on quantity, e.g. the number of approved translated concepts, the number of unresolved problem concepts sent to the editorial board, the number of errors made by the translators
- follow-up on quality, e.g. how well the translation complies with the linguistic guidelines; how well the translation complies with language corpora and concordance with respected medical journals and other relevant sources
- follow-up on costs
- follow-up on deviations from goals
- follow-up on translation service provider issues
- follow-up on tooling performance (translation workflow application software)
New international versions of SNOMED CT® are released two times a year. A National Release Centre has ~ 14 weeks to prepare a national release. For each new version of SNOMED CT® it is necessary to:

- translate descriptions for new concepts
- handle revision of concepts, or, re-activation of concepts
- assess if changes in SNOMED CT® require changes in existing (national) subsets/refsets and other products.

After the translation has been approved by the project owner there is often still a need for editing previously translated preferred terms.

- The translation of concepts in subsequent, newer releases of SNOMED CT® and the ongoing updates of the linguistic guidelines may have an impact on older translations.
- Post-editing issues should be managed by an editorial board.
Translation and maintenance of a terminology is not static … it never really ends!!

- In Sweden and Denmark a small Editorial Board is still involved with every update.
- Sweden has learned from experience that with each new release ~ one month is required for translation work and another month for quality review work. However, this is variable and there is no set rule e.g. the July 2011 release involved the translation of ~ 3000 concepts
The Quality work … in more detail

1. Developing a methodology and toolkit for evaluating SNOMED CT® translation quality
2. A methodology and toolkit for evaluating SNOMED CT® translation quality
A toolkit to assist in the measurement of the quality of a translation project

- Background methodology document
  - Review process, bibliography
  - Implementation of IHTSDO Quality Framework

- Methodology and tools document
  - Components and Quality Metrics
  - Questionnaires
  - Reporting Results
Scope of Work, Content

Table of Contents

1 Introduction ................................................................. 4
2 How to use this toolkit .................................................. 4
3 The metrics ................................................................. 5
  3.1 Methodology for metrics development ............................. 5
  3.2 The SMART rating .................................................. 5
  3.3 Quality characteristics and metrics overview ....................... 6
  3.4 Structure characteristics and metrics ............................. 8
  3.5 Process characteristics and metrics .............................. 12
  3.6 Outcome characteristics and metrics ............................ 15
  3.7 Schema of frequency to measure metric ......................... 22
4 Questionnaires and Report sheet .................................... 23
  4.1 The questionnaires ................................................ 24
  4.2 The report sheet ................................................... 34
5 Bibliography ...................................................................... 35
The background research that led to the definition of the toolkit content, included consideration and review of:

- ISO R 704 Naming Principles
- DIN 2330: Begriffe und Benennungen
- EN 15038: 2006 Translation Services – Service Requirements
- Sager, Dungworth, McDonald: English Special Languages. 1980.
- ... and others
IHTSDO Framework in the translation context

- SMART Rating
- Quality components
- Quality characteristics
- Quality metrics
- Quality targets
The use of the SMART criteria is described in the IHTSDO Quality Framework Toolkit (ref 13):

- **Specific**: The agreed component-characteristic pairing should be sufficiently precise to allow subsequent testing and evaluation against targets.
- **Meaningful**: The agreed component-characteristic pairing should be interpretable by all stakeholders as a meaningful attribute of the activity under consideration.
- **Achievable**: The targets chosen for corresponding metrics should be achievable within anticipated resources and when compared with best estimates/empirical evidence.
- **Realistic**: The agreed component-characteristic (and the planned corresponding metrics) should be possible given anticipated resources, tooling and workflow.
- **Timely**: Corresponding metrics (and the ability to respond when metric results are below targets set) should be available in a timely fashion to all stakeholders.
We used SMART as a method for dividing the quality characteristics with the associated metrics into three categories – the SMART rating:

- **GREEN**: Suitable for IHTSDO use and mature for immediate use
- **YELLOW**: Probably suitable for IHTSDO use and mature for immediate use – i.e. further discussions and refinement probably needed
- **RED**: Difficult to use within IHTSDO and not mature for immediate use – i.e. further discussion required, and needs improvement

The SMART rating is placed after each metric and takes into account the metrics for quality characteristics description as well as the corresponding questionnaires.
## Selected Quality Metrics

<table>
<thead>
<tr>
<th>Component</th>
<th>Group as indicated by Gilreath*</th>
<th>Characteristics</th>
<th>Description of characteristics/indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td></td>
<td>Translation process participants' competencies and knowledge</td>
<td>Educational background and professional experience of translators; skills within translation and/or medical areas. Knowledge of SNOMED CT and of the translation process</td>
</tr>
</tbody>
</table>
| Structure |                                 | Access to translation software | Tool dedicated to concept-based translation
Explicit specifications and tested software |
| Structure |                                 | Content of target language specific linguistic guidelines | Existence of style guides in target language and relevant content |
## Selected Quality Metrics

<table>
<thead>
<tr>
<th>Component</th>
<th>Group as indicated by Gilreath*</th>
<th>Characteristics</th>
<th>Description of characteristics/indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>Semantic adequacy</td>
<td>Concept-based translation</td>
<td>Check if all translation process participants are well aware of the importance of this principle</td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td>Ongoing co-operation between TPO and TSP</td>
<td>Existence of an agreement regarding meetings and contacts as well as compliance with this agreement</td>
</tr>
<tr>
<td>Process</td>
<td></td>
<td>Translation reviews</td>
<td>Two-level review process necessary</td>
</tr>
</tbody>
</table>
## Selected Quality Metrics

<table>
<thead>
<tr>
<th>Component</th>
<th>Group as indicated by Gilreath*</th>
<th>Characteristics</th>
<th>Description of characteristics/indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome</td>
<td>Pragmatic adequacy</td>
<td>Clinical acceptability</td>
<td>Precedent: the degree to which the term is in harmony with established terms; if terms have been rejected by end users, how many/how often?</td>
</tr>
<tr>
<td>Outcome</td>
<td>Form correctness</td>
<td>Compliance with translation guidelines</td>
<td>Translation (of FSN and PT, respectively) must comply with: IHTSDO standards, IHTSDO Translation and Translation management guidelines/National guidelines/decisions of principle</td>
</tr>
<tr>
<td>Outcome</td>
<td>Semantic adequacy</td>
<td>Term equivalence</td>
<td>Semantically, target language terms must correspond to source language terms; may be measured via back translation</td>
</tr>
</tbody>
</table>
**Questionnaires**

**INTERNATIONAL HEALTH TERMINOLOGY STANDARDS DEVELOPMENT ORGANISATION**

**QUESTIONNAIRE 4 (TSP & TPO)**

**Component: Process**

**Quality characteristic: Concept based translation**

The background for this metric is that all those involved should be aware that in order to obtain the desired outcome, the translation must be concept based. That implies the use of the steps described in the Guidelines of translation. The figure showing the steps is copied below. In case of any negative replies, steps should be taken to ensure further training of the participants.

1. **Read source language term**
2. **Check the concept's IS-A relationship(s)**
3. **Find equivalent concept and term in target language**
4. **In case of any doubt, find examples of the source term used in context in order to elucidate the meaning**
5. **Write target language term**
6. **Check the concept's attribute relationships**

---

**Question**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you reviewed your processes to ensure that you are using the &quot;concept based&quot; translation principle?</td>
<td></td>
</tr>
<tr>
<td>2. Have you taken steps to ensure continuous education/instruction concerning the concept based translation principle?</td>
<td></td>
</tr>
</tbody>
</table>

**Component: Structure**

**Quality characteristic: Access to translation software**

The background for this metric is that all participants should have access to one common tool. Indeed, this is an important factor for securing translation consistency and translation process transparency.

The IHTSDO has defined a number of key requirements for translation tools. If the translation functionality of the IHTSDO tool is used, the requirements are considered to be fulfilled. If another tool is used, question 3 to 8 must be answered, and action must be taken in case of any negative responses.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do all translators and reviewers have access to one common software tool platform?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Are you using a software tool developed by the IHTSDO? (If so, do not answer questions 3 to 7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you are using another software tool than the IHTSDO tool, please answer questions 3 to 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Provide facilities for the management of translation projects, including creation and allocation of work packages, and reporting of progress.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Provide workflow facilities covering the translation and review process to enable efficient quality assurance controls on the translation of SNOMED CT terms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Enable collaboration on translation projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Enable the ongoing easy maintenance of existing translations, with updates resulting either from changes to SNOMED CT content or elsewhere.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Produce releases in the new SNOMED CT release format (RF2).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Allow configuration of quality assurance rules that can be run at edit time and release time.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments to the above questions:
### QUESTIONNAIRE 6b (TPO)

#### Component: Process

**Quality characteristic: Translation reviews**

The background for this metric is to ensure that a review of clinical usability and psychological appropriateness are carried out. This includes an additional review by a subject matter expert (SME) or a person with a relevant health-related education, i.e. a health care professional (HCP).

In case of any negative replies to any questions, appropriate management action should be taken.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you set up a system to ensure that any translated concepts could be readily reviewed by an SME or an HCP?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Have you made sure that your SMEs/HCPs are well aware that their main task is to verify if the translations comply with the principles of clinical usability and psychological acceptability?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Have you made sure that your SMEs/HCPs are aware of the importance of terminology consistency, and have they been instructed also to take local guidelines and principles into consideration?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments to the above questions:
Roadmap

- August 2011, First Public Draft
- ...
Ačiū
Ďakujeme vám
Danke
Dank u
Gracias
Merci
Obrigado
Tack
Tak
Terima kasih
Thank you
谢谢
谢谢