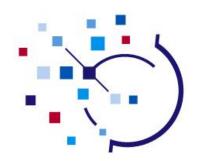


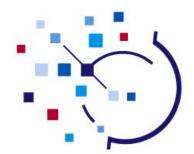
The IHTSDO Guidance for help with Translation

Jane Howarth, Chair, IHTSDO Translation SIG 2011.10.14. Sydney, Australia



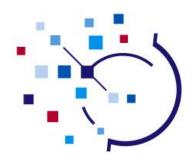


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About the Translation SIG

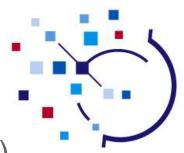
- The Translation SIG is a helpful "entry point" to the IHTSDO community, where new IHTSDO Members are able to find advice and documented experience to support their translation efforts.
- Since the formation of the IHTSDO, 3 countries have completed their translation mandate and others* either have/are 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)
 - http://www.ihtsdo.org/publications/translating-snomed-ct/
- 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:

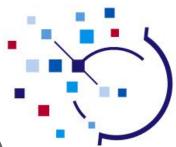
- Outline the IHTSDO guidance on translating SNOMED CT®, and, on managing the translation process as described in the Guidance documents published by the Translation Special Interest Group (SIG)
- Give an overview to the quality work undertaken by the Translation Quality Assessment Project Group (PG) including an introduction to the quality assurance mechanisms and metrics deemed important to assessing translation quality



Snapshot of the Published Guidelines (1)

Guidelines for Translation of SNOMED CT® (May 6, 2010)

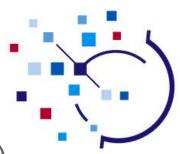
- This updated version of the 'Guidelines for the Translation of SNOMED CT®' further describes, formulates recommendations, and establishes guidelines on important and common issues relevant to the translation of SNOMED CT®.
- The Translation SIG recommends that these general guidelines be used as a 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.



Snapshot of the Published Guidelines (2)

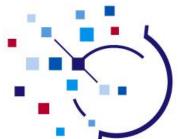
Guidelines for the Management of Translations of SNOMED CT® (April 14, 2010)

- 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 <u>not</u> 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.



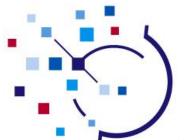
Snapshot of the Published Guidelines (3)

- 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
 - http://www.ihtsdo.org/publications/translating-snomed-ct/
- 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")



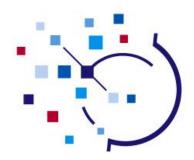
Snapshot of the Translation Quality Assessment Work (1)

- 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.



Snapshot of the Translation Quality Assessment Work (2)

- 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 ...

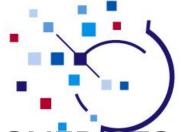


The Guidelines ... in a bit more detail

- 1. Guidelines for Translation of SNOMED CT®
- 2. Guidelines for Management of Translation of SNOMED CT®

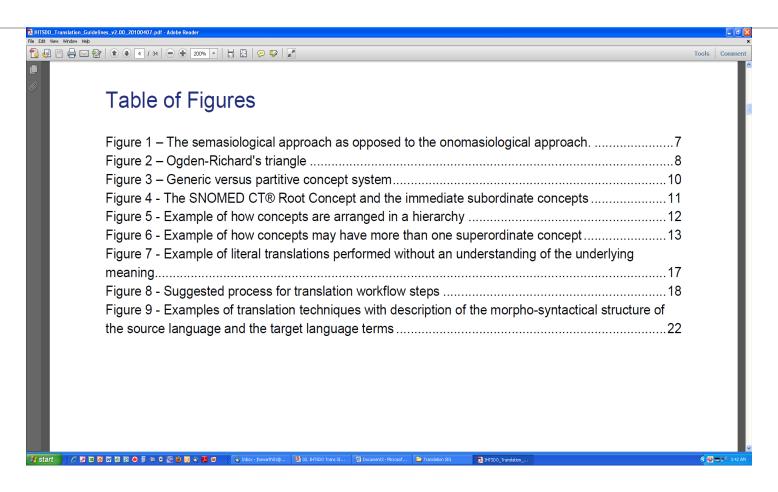
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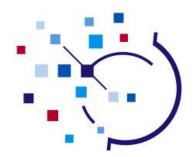
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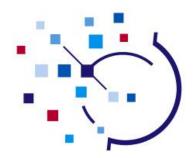






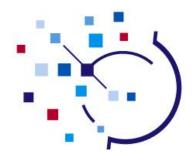
What's really important ... (1)

- 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 <u>not</u> <u>perfect</u> 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!



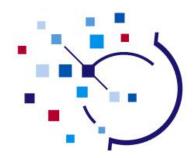
What's really important ... (2)

- 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.



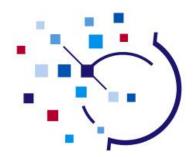
What's really important ... (3)

- 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 <u>crucial</u>.
- 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).



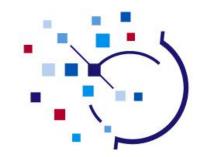
What's really important ... (4)

- 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.



What's really important ... (5)

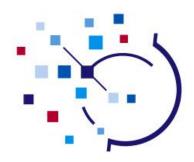
- Although this Guideline contains numerous examples that support the foregoing points, I'll leave you with the following examples relating to the risk of performing a literal translation without an understanding of the true underlying meaning ... which occurs when a concept-based (onomasiological) approach 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 ...

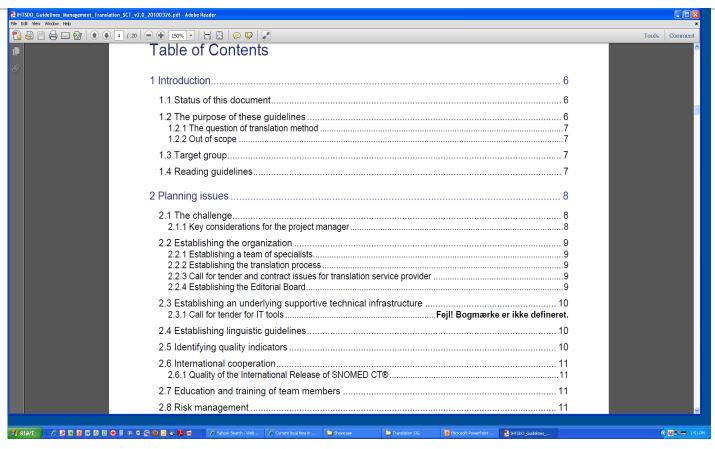
Original term	Correct [language] translation	Actual [language] translation
open reduction of volvulus of cecum	réduction d'un volvulus caecal par voie ouverte [French] = reduction of a volvulus of cecum with open access	réduction d'un volvulus caecal à ciel ouvert [French] = "reduction of a volvulus of cecum in the open air"



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®

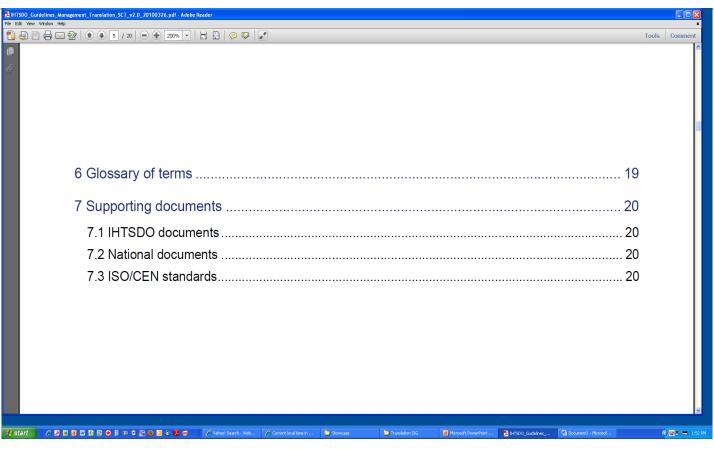




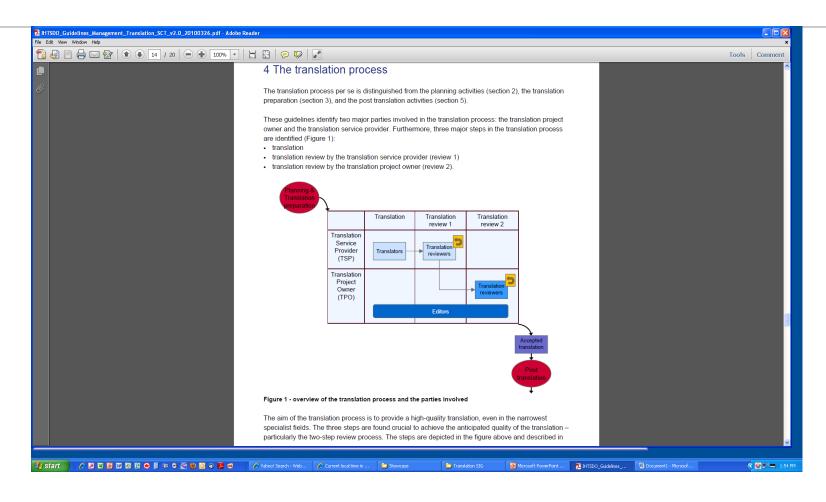
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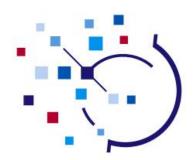
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TOC: Guidelines for Management of Translation of SNOMED CT®



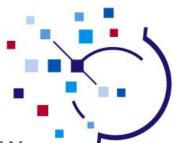
What's really important ...





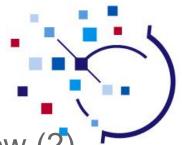
What's really important: Translation

- 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.



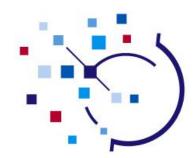
What's really important: Translation Review

- 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.



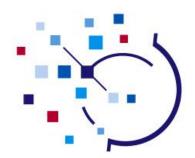
What's really important: Translation Review (2)

- 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



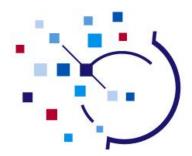
What's really important: Editing

- 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.



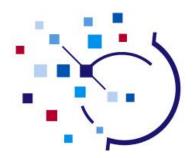
Progress Monitoring and Follow-Up

- 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.



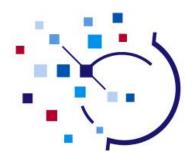
Progress Monitoring and Follow-Up (2)

- 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)



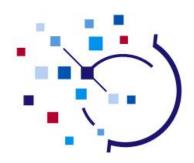
Maintenance and Post-Editing

- 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.



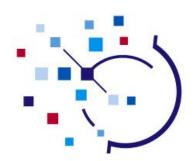
Maintenance and Post-Editing (2)

- 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



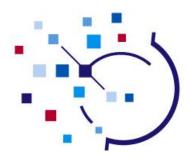
The Quality work ... in more detail

- 1. Developing a methodology and toolkit for evaluating SNOMED CT® translation quality
- 2. A methodology and toolkit for evaluating SNOMED CT® translation quality

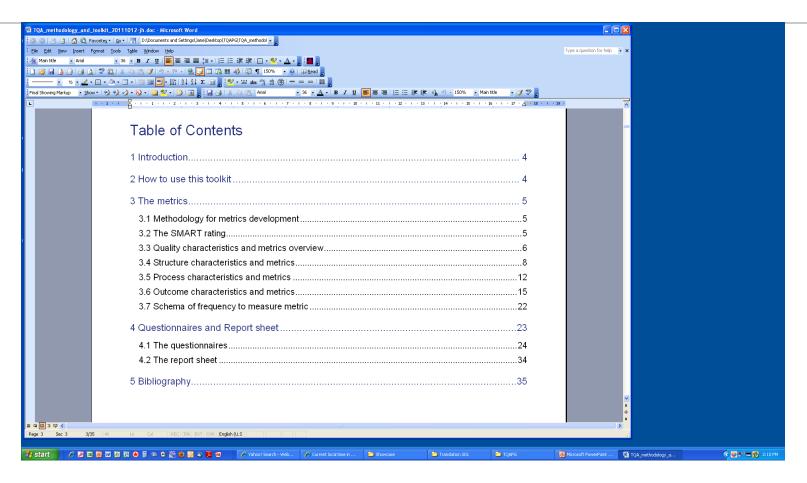


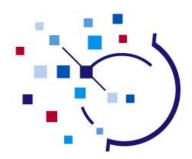
Scope of Work, Content, Definitions

- 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



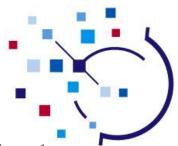
Scope of Work, Content





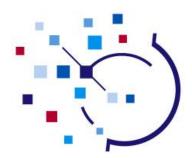
Background Research

- 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 http://esearch.cen.eu/CatWeb.aspx?id=2448864
 - Gloria C. Pastor: Translation Quality Standards in Europe: an Overview. www.hum106.com/Publicaciones/Corpas 2006b.pdf
 - J.C. Sager A Practical Course in Terminology Processing. Benjamins 1990
 - Sager, Dungworth, McDonald: English Special Languages. 1980.
 - Picht, Heribert & Jennifer Draskau: Terminology: an introduction. University of Surrey 1985.
 - ... and others



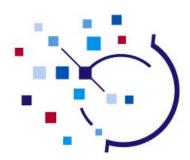
IHTSDO Framework in the translation context

- SMART Rating
- Quality components
- Quality characteristics
- Quality metrics
- Quality targets



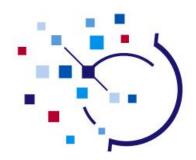
SMART Rating

- 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.



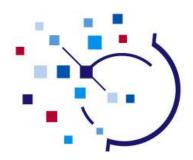
SMART Rating

- 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.



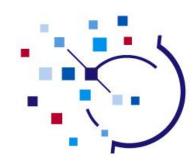
Selected Quality Metrics

Component	Group as indicated by Gilreath*	Characteristics	Description of characteristics/indicators
Structure		Translation process participants' competencies and knowledge	Educational background and professional experience of translators; skills within translation and/or medical areas. Knowledge of SNOMED CT and of the translation process
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



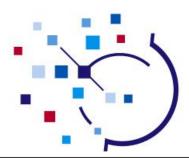
Selected Quality Metrics

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



Selected Quality Metrics

Component	Group as indicated by Gilreath*	Characteristics	Description of characteristics/indicators
Outcome	Pragmatic adequacy	Clinical acceptability	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?
Outcome	Form correctness	Compliance with translation guidelines	Translation (of FSN and PT, respectively) must comply with: IHTSDO standards, IHTSDO Translation and Translation management guidelines/National guidelines/decisions of principle
Outcome	Semantic adequacy	Term equivalence	Semantically, target language terms must correspond to source language terms; may be measured via back translation



Questionnaires

QUESTIONNAIRE 2 (TSP & TPO)

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.

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

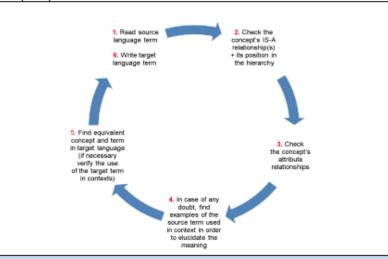
QUESTIONNAIRE 4 (TSP & TPO)

Component: Process

Quality characteristic: Concept based translation

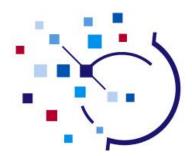
The background for this metric is that all those involved should be aware that in order to obtain the desired outcome, the translation must be concept based. That implies the use of the steps described in the Guidelines of translation. The figure showing the steps is copied below.

In case of any negative replies, steps should be taken to ensure further training of the participants.



Question		Yes	No
1.	Have you reviewed your processes to ensure		
	that you are using the "concept based"		
	translation principle?		
2.	Have you taken steps to ensure continuous		
	education/instruction concerning the concept		
	based translation principle?		

Comments to the above questions:



Reporting Results

QUESTIONNAIRE 6b (TPO)

Component: Process

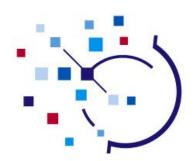
Quality characteristic: Translation reviews

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).

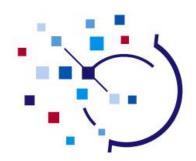
In case of any negative replies to any questions, appropriate management action should be taken.

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



Roadmap

- August 2011, First Public Draft
- ...



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Ačiū
Ďakujeme vám
   Danke
   Dank u
   Gracias
    Merci
  Obrigado
    Tack
    Tak
Terima kasih
 Thank you
    谢谢
    谢谢
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