

# An introductory guide to the creation of SNOMED CT translations

The global dissemination of SNOMED CT® increases the need to provide the terminology in many different languages. SNOMED CT® has a built-in framework to manage different languages and dialects. Currently, entire or partial translations of SNOMED CT® are available in US English, UK English, Spanish, Danish, Swedish and Canadian French. Translations in other SNOMED International Member countries and elsewhere are also in progress.

In addition, SNOMED International has created a starter set of SNOMED CT concepts, along with a number of translations of the set. This starter set is available in Chinese, Japanese, French and German. The Starter set has been created using available usage data, to provide a set that contains concepts which can be described as high usage

## Principles

1. It is crucial that those involved in the translation, verification, validation, and approval processes are **familiar** with the **terminological principles** on which SNOMED CT® is based. It is equally important that they comply with IHTSDO Style Guides and that they are conscious of issues such as the choice of lexical variant, term requirements, translation techniques, and the importance of ensuring linguistic consistency.
2. Translation Project Owners (TPOs) should strive to ensure that translations comply with the **principles** on which SNOMED CT® was originally based (**comprehensibility, reproducibility, usefulness**) and that the information contained in the translated concepts is **semantically equivalent** to that contained in the core source terminology (international release).
3. The basic objective of any SNOMED CT® translation is to provide **accurate** and **unambiguous descriptions** of SNOMED CT® concepts in the target language. Therefore, a 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**.
4. **General linguistic principles**
  - The overall principle should be that since the target group of the national edition of SNOMED CT® are professionals, a high level of quality **LSP** (Language for Specific Purpose) terms should prevail. It is recommended that some preliminary, general principles regarding the choice of lexical variant are established before the translation work commences.
  - Recommendations or policies established by a national language council, authority or board should, in general, be followed
5. Translate only synonyms that are required, **NOT** Fully Specified names (FSN's)

## Planning a translation

- Create a plan for the translation process
- Ensure the translation plan is based on your stated requirements
- Be realistic with regards to timescales
- Remember to include quality assurance as part of your translation
- Include technical requirements as part of the plan - release format for translation will be RF2, as a language reference set

## Resource requirements

- Ensure you plan your translation from the beginning
- Base your resource requirements on the plan
- Remember to include resource to undertake quality assurance of the translation

## Initial Translation

"Comparing different methods to obtain an initial translation" is a report produced by NICTIZ in 2016. The report details a review of four different approaches used to create translations using a benchmarking approach. A copy of the report is available [HERE](#)

## What not to do . . .

- Scope - Only translate what you need to translate
- Do not translate inactive content
- Do not translate using Excel
- Do not try to translate the whole of SNOMED CT in a single instance
- Translate only those terms that will appear in your language reference set, i.e. those that will be used by end user systems

## Translation examples

- ICD-11 translation tool

[https://icd.who.int/dev11/Help/Get/translation\\_general/en](https://icd.who.int/dev11/Help/Get/translation_general/en)

## Translation methods - examples from research

- **An Analysis of Google Translate Accuracy** by Milam Aiken and Shilpa Balan, Translation Journal, Volume 16, No. 2 April 2011

"Although *Google Translate* provides translations among a large number of languages, the accuracies vary greatly. This study gives for the first time an estimate of how good a potential translation might be using the software. Our analysis shows that translations between European languages are usually good, while those involving Asian languages are often relatively poor. Further, the vast majority of language combinations probably provide sufficient accuracy for reading comprehension in college".

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- **Use of Google Translate in medical communication: evaluation of accuracy** by Sumant Patil (senior clinical fellow) and Patrick Davies (consultant), BMJ, 2014; 349

"Google Translate has only 57.7% accuracy when used for medical phrase translations and should not be trusted for important medical communications. However, it still remains the most easily available and free initial mode of communication between a doctor and patient when language is a barrier. Although caution is needed when life saving or legal communications are necessary, it can be a useful adjunct to human translation services when these are not available."

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- **The funny side of Google Translate in medical communication**, BMJ, 2014

Article is a small sample study, but gives examples of unwanted translations, such as the following:

Phrase	Translation
Your wife is stable	Your wife cannot fall over
Your husband had a cardiac arrest	Your husband's heart was imprisoned
Your husband had a heart attack	Your husband's heart was attacked
Your wife needs to be ventilated	Your wife needs to be aired
Your child's condition is life threatening	Your child's state is not life stopping
Your child has been fitting	Your child has been constructing
Your child will be born premature	Your child is sleeping early
Your husband has the opportunity to donate his organs	Your husband is now ready to donate
We will need your consent for operation	We need your consent for operating (such as machinery)
Did he have high fever at home?	Your home temperature was high

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- **Semi-automated approach**

"A Finite-State Approach to Translate SNOMED CT Terms into Basque Using Medical Prefixes and Suffixes"

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