

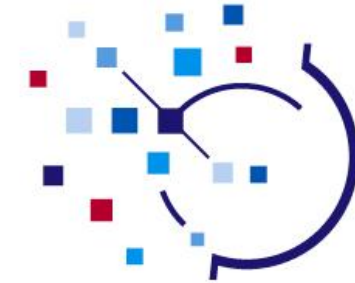
# IHTSDO Support for Translation

*Translation Special Interest Group*

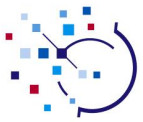
Presenters: Jane Howarth, Karin Ahlzén,  
Alejandro Lopez Osornio

International Health Terminology  
Standards Development Organisation

■ INTERNATIONAL HEALTH TERMINOLOGY  
STANDARDS DEVELOPMENT ORGANISATION



Bienvenue  
Bienvenida  
Selamat datang  
Sutikti  
Välkommen  
Velkommen  
Vitajte  
Welcome  
Welkom  
Willkommen  
欢迎  
歡迎

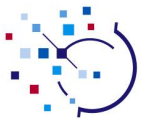


# Session Overview

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This session will:

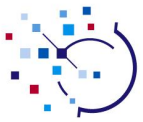
- Explain how the IHTSDO through the Translation SIG can support those undertaking translation of SNOMED CT®
- Provide an overview of the IHTSDO guidance documents available for translating SNOMED CT®
- Give an overview of the quality metrics work undertaken by the Translation Quality Assessment Project Group (PG)
- Provide an overview to the translation tooling module that has been developed as part of the IHTSDO Workbench suite of applications.



# About the Translation SIG

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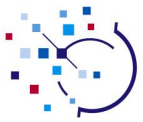
- The Translation SIG is a helpful “entry point” to the IHTSDO community, where new IHTSDO Members are able to find **advice** and **documented experience** to support their translation efforts.
- Since the formation of the IHTSDO, 3 countries have completed their translation mandate and others either 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/develop/documents/translating-snomed-ct/>



# Scope of work of the Translation SIG

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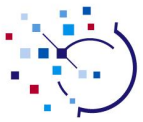
- Providing a forum where members can share experience
- Providing advice and guidance to support localisation efforts (e.g. translation).
- Providing information about IHTSDO tooling relevant for localisation
- Providing input into the development of processes and policy decisions that further improve the (English) source language terminology to facilitate SNOMED CT usage
- Providing input into processes that impact on the ability of SNOMED CT to be localised



# Responsibilities and Accountability of the Translation SIG

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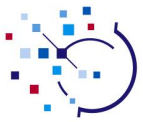
- Support the application of the IHTSDO quality framework and the development and implementation of quality metrics for translation and localisation projects
- Support localisation and translation efforts internal to the IHTSDO and support global developments of SNOMED CT
- Provide input into the specification and testing of IHTSDO tooling relevant for localisation
- The Translation SIG is accountable to the Quality Assurance Committee; the responsible IHTSDO Officer is the Chief Quality Officer



# Guidelines for Translation of SNOMED CT®

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- The ‘Guidelines for the Translation of SNOMED CT®’ formulates recommendations and establishes guidelines on important 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.
- New version will be published later this autumn.
- <http://www.ihtsdo.org/develop/documents/translating-snomed-ct/>

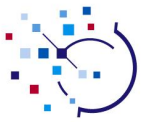


# Guidelines for Management of Translation of SNOMED CT®

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- 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).
- New version will be published later this autumn.
- <http://www.ihtsdo.org/develop/documents/translating-snomed-ct/>





# Snapshot of the Published Guidelines

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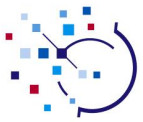
- Although both Guidelines are largely *informative* not *normative* documents, they do provide sound advice to those wishing to undertake a target language translation of SNOMED CT®.
- It is important to note that parallels may be drawn between the Translation Guidelines and the IHTSDO Editorial policies such as those relating to Terming and Naming Conventions applicable to the International release.
- The quality of the source language terminology has great impact on the translation quality. Similarly, ongoing and completed SNOMED CT® translation mandates often highlight some quality issues and areas for improvement within the International release. (“Catch 22”)



# Important Principle: Concept-Based Translation

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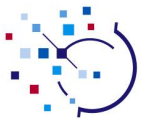
- The basic objective of any SNOMED CT® translation is to provide accurate (“safe”) and unambiguous descriptions of SNOMED CT® concepts in the target language.
- Therefore, the principle of ***concept-based translation*** must be used.
- Defining a set of national linguistic guidelines, including syntactical, 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.



# Important Principle: Translation Review

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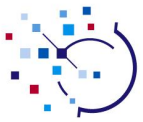
- Experience from existing translation projects indicates that a **two-step review** improves the quality of the translation.
  - The first review is a kind of internal quality check performed by the translation service provider.
  - The second review is an external review arranged by the translation 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.



# Overview of Translation Quality Assessment Work

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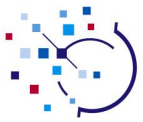
- This work/deliverables known as “A methodology and toolkit for evaluating SNOMED CT® translation quality” was undertaken by another PG established by the Translation SIG - The Translation Quality Assessment Project Group (TQAPG).
- The existing Translation Guidelines provided the essential material from which was *derived* a reasonable set of (9) **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 is referred to in both of the aforementioned Translation Guideline(s).
- The work resulted in two documents – Background and Toolkit, both of which are now going through the Approval Process for IHTSDO Guidelines, and it is anticipated that both will be published this year.
- This work is one example of a practical application of the IHTSDO Quality Assurance Framework being undertaken by IHTSDO WGs.



# Translation Quality Assurance Toolkit

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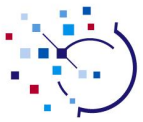
- Toolkit content:
  - Background document: academic description of the development process, fully referenced.
  - Methodology guide: metrics selection and practical advice on implementing the QA process
  - Questionnaires and report sheet



# Structure metrics

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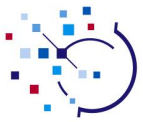
- Translation process participants' competences
  - Measured by: Questionnaires to TPO and TSP
  
  - Variables:
    - Languages educational background (TSP)
    - Healthcare educational background (TPO)
    - Medical translation experience (TSP)
    - SNOMED CT knowledge(TPO & TSP)



# Structure metrics

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- Content of linguistic guidelines in target language
  - Measured by: questionnaire
  - Variables
    - Content details:
      - Rules to deal with: ambiguities, concept details, best term selection, lexical variants, organisms and chemical names, eponyms, etc.
    - Are the current guidelines sufficient to cover these points?
    - Are you recording and using feedback to improve?

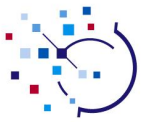


# Structure metrics

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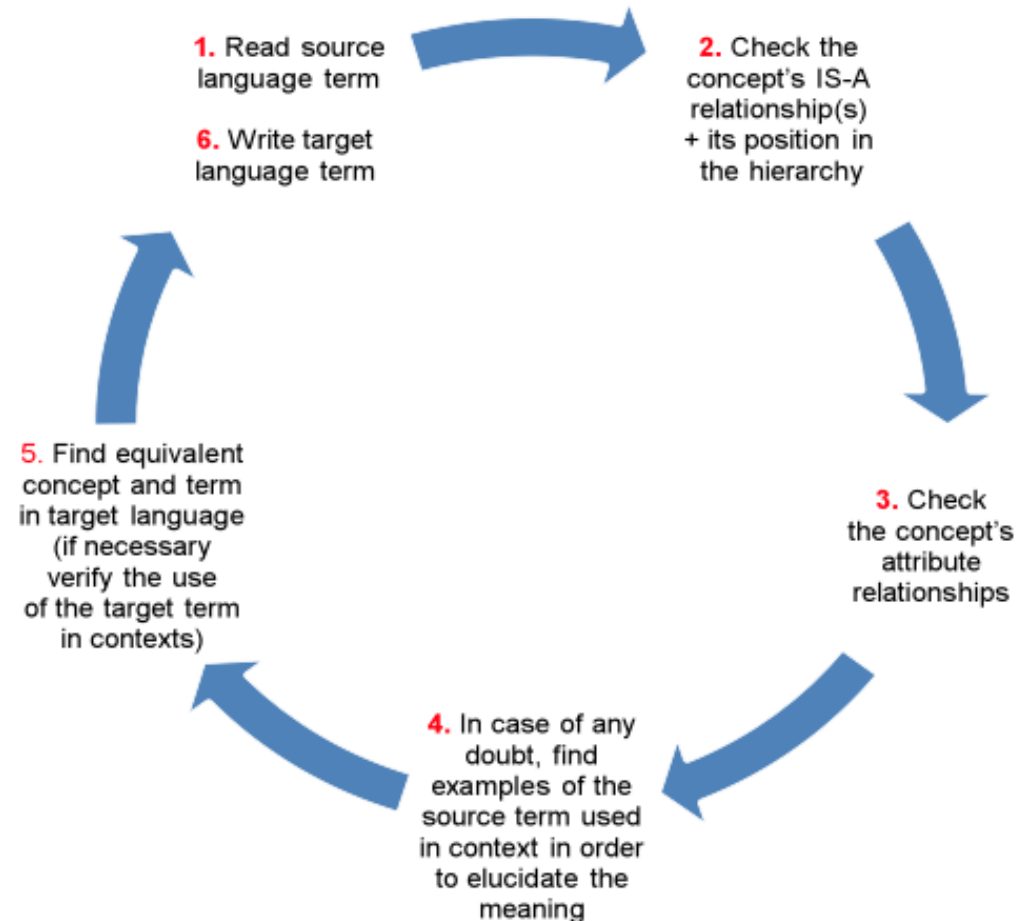
- Access to translation software
  - Measured by: Questionnaire
  - Draft variables by the Translation Tooling Steering Group:
    - Do all team member use a common platform? is it the IHTSDO tool?
    - Support for translation projects, work allocation
    - Workflow facilities and Collaboration
    - Ongoing maintenance, new versions of SNOMED CT
    - Produce RF2 releases
    - Configurable QA rules





# Process metrics

- Concept based translation
  - Measured by: questionnaire
  - Variable:
    - Team awareness
    - Continuous education

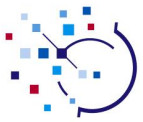




# Process metrics

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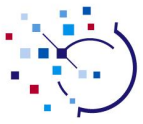
- Continuous co-operation between TPO and TSP
  - Measured by: questionnaire to TPO & TSP
  - Variables:
    - Periodical meetings scheduled
    - Feedback management
    - Reported need for improved cooperation



# Process metrics

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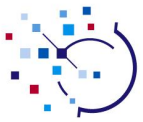
- Translation reviews
  - Measured by: questionnaire to TPO & TSP
  - Variables:
    - 2<sup>nd</sup> translator review for linguistic correctness
    - Awareness of importance of linguistic correctness and consistency
    - SME / Medical review for clinical acceptability and appropriateness
    - Awareness of importance of clinical usability and correctness



# Outcome metrics

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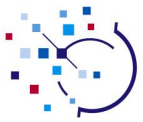
- Clinical acceptability
  - Measured by: feedback records
  - Options:
    - Feedback from ad-hoc clinical review (sampling)
    - Feedback from end-users



# Outcome metrics

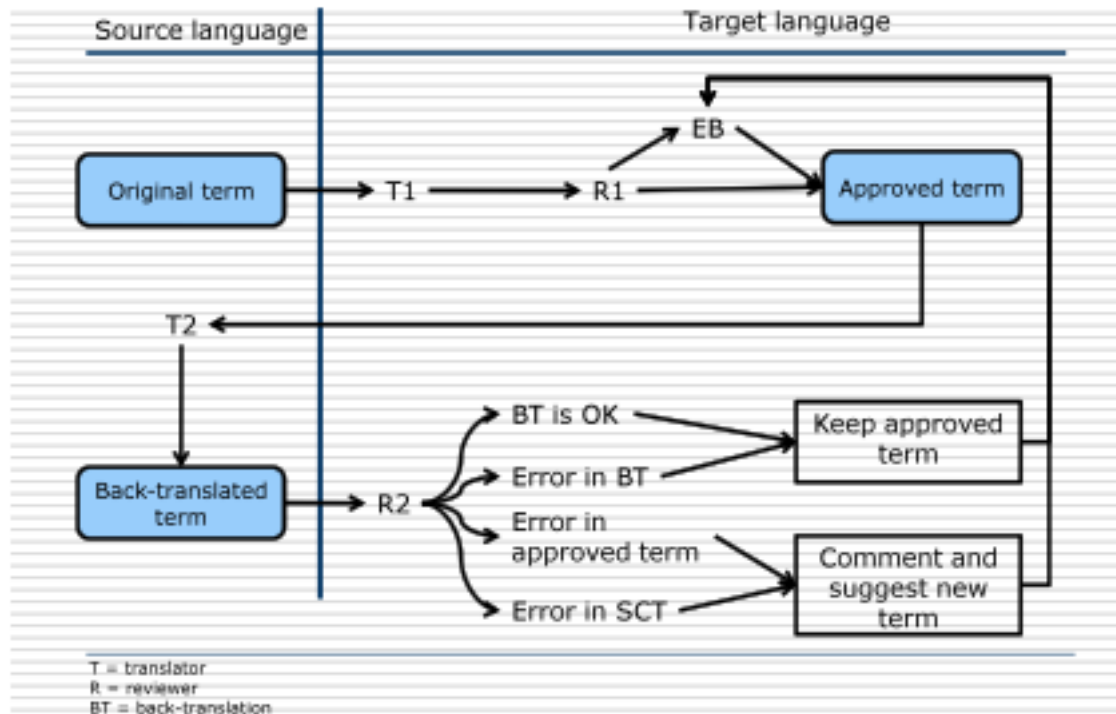
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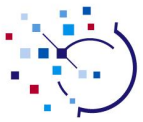
- Compliance with translation guidelines
  - Measured by: Sampling and automated checks
  - Options:
    - Automated QA checks, looking for patterns
    - Manual review of a sample to check compliance with linguistic guidelines



# Outcome metrics

- Term equivalence (semantic)
  - Measured by: back translation of a sample





# Questionnaires

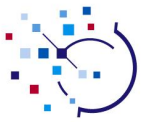
<b>Questionnaire 6a: For Use by TSP</b>		
<b>Component: Process</b>		
<b>Quality characteristic: Translation reviews</b>		
<p>The background for this metric is to ensure that a review of terminology consistency, term equivalence and compliance with target language specific guidelines is carried out. This includes review by the 2nd translator and review by a Subject Matter Expert (SME) or a person with relevant health-related education, i.e. a healthcare professional Management action should be taken for negative responses to any questions.</p>		
<b>Question</b>	<b>Yes</b>	<b>No</b>
1. Are all translated concepts reviewed and validated by a reviewer?		
2. Have you made sure that your translators are aware of the importance of terminology consistency and term equivalence, and that they check this when reviewing?		
3. Have you made sure that your translators are aware of the importance of linguistic correctness and compliance with the target language specific guidelines and principles, and that they check this when reviewing?		
Additional comments relating to questions above:		



# Report sheet

<b>Translation Quality Assessment Metrics Results</b>		
<b>Organization:</b>		
<b>Metric</b>	<b>Result</b> (Brief text summary of results)	<b>Date</b> ( <u>yyyymmdd</u> )
1. TSP members competencies and knowledge		
2. TPO members competencies and knowledge		
3. Access to translation software		
4. Content of linguistic guidelines		
5. Concept-based translation		
6. Ongoing cooperation reported by TSP		
7. Ongoing cooperation reported by TPO		
8. Translation reviews: Consistency		
9. Translation reviews: Clinical usability		
10. Clinical acceptability		
11. Compliance with Translation Guidelines and Standards		
12. Term equivalence		
Additional comments relating to quality characteristics or metrics above.		





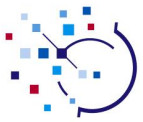
Component	Characteristic
Structure	Participants knowledge of terminology and terminology translation processes (characteristic also includes translators and reviewers competencies)
Structure	Content of style guides and reference materials in target language
Structure	Access to translation software
Process	Concept-based translation principle
Process	Translation reviews
Process	Ongoing communication, co-operation and translation project process adjustments between Translation Project Owner (TPO) and Translation Service Provider (TSP)
Outcome	Term equivalence
Outcome	Clinical acceptability
Outcome	Compliance with Translation Guidelines and Standards



# Translation Tooling

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- Availability and roadmap
  - Just finished 3<sup>rd</sup> User Acceptance Test (UAT) cycle; performed by Canada Health *Infoway*
  - Six-month pilot starting in Denmark before the end of the year
  - Parallel effort underway to merge translation bundle with main Workbench application
  - After completion of the pilot and the merge, a new version of the workbench will be available for Members as part of the Managed Services, or, as libraries for local implementations



# Project Manager Panel

Editor Window; User: sebastian-pm

taxonomy metadata Project Manager

Projects Add Project Close

Translation Projects

- traduccion\_octubre\_2012 (translation project)
  - Exclusion Refsets
  - Linked Refsets
  - Source Languages
  - Target Language
  - Worksets
    - Maintenance - traduccion\_octubre\_2012 (workset)
    - cambios en semantic tag (workset)
    - conceptos nuevos\_oct2012 (workset)
      - Partition Schemes
        - conc nu oct (partition scheme)
          - conc nu oct (partition)
            - conceptos nuevos octubre 2012
            - nuevos prueba
    - Exclusion Refsets
    - Source Refset
    - fsn changes (workset)
    - nuevas descripciones\_oct2012 (workset)
    - pref changes (workset)
    - reactiv conc (workset)
    - reactiv descript (workset)
    - retired concepts (workset)
    - retired descriptions (workset)
- spanish\_translation\_ab\_2012 (translation project)

WorkList Members Roles Status Re assign

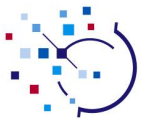
WorkList members Partition: conc nu oct (partition)

WorkList member	Status	Destination
Acinetobacter gyllenbergii	approved for publication s...	sebastian-pm
Acquired penile adhesion (...)	approved for publication s...	sebastian-pm
Acquired pronation defor...	approved for publication s...	sebastian-pm
Action for dysphasic adults...	worklist item assigned	sebastian-pm
Action for dysphasic adults...	worklist item assigned	sebastian-pm
Acute cystitis in pregnancy,...	approved for publication s...	sebastian-pm
Acute mixed lineage leuka...	approved for publication s...	sebastian-pm
Acute myeloid leukemia (m...	approved for publication s...	sebastian-pm
Acute myeloid leukemia wi...	approved for publication s...	sebastian-pm
Acute myeloid leukemia wi...	approved for publication s...	sebastian-pm
Adjustment to extraocular...	escalated to editorial boar...	sebastian-pm
Adjustment to internal fixa...	escalated to editorial boar...	sebastian-pm
Adverse drug reactions ref...	escalated to editorial boar...	sebastian-pm
Adverse drug reactions ref...	escalated to editorial boar...	sebastian-pm
Aeromicrobium flavum (or...	approved for publication s...	sebastian-pm
Aeromicrobium tamlense (...)	approved for publication s...	sebastian-pm
Aeromonas piscicola	approved for publication s...	sebastian-pm
Aeromonas sanarellii (orga...	approved for publication s...	sebastian-pm
Aeromonas taiwanensis (or...	approved for publication s...	sebastian-pm
African pygmy hedgehog	approved for publication s...	sebastian-pm
Allergies reference set for...	escalated to editorial boar...	sebastian-pm
Allergies reference set for...	escalated to editorial boar...	sebastian-pm
Allergy to tramadol	approved for publication s...	sebastian-pm
American English coonhou...	approved for publication s...	sebastian-pm
Amycolatopsis regifaucium	approved for publication s...	sebastian-pm
Anal sacculitis	approved for publication s...	sebastian-pm

The worklist members are displayed

View Member History Refresh

cancel commit



# Refsets: Specification

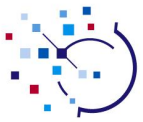
◀ metadata
conjunto de ref...
list
refSet spec
classifier

Clinical course (valid targets) refset

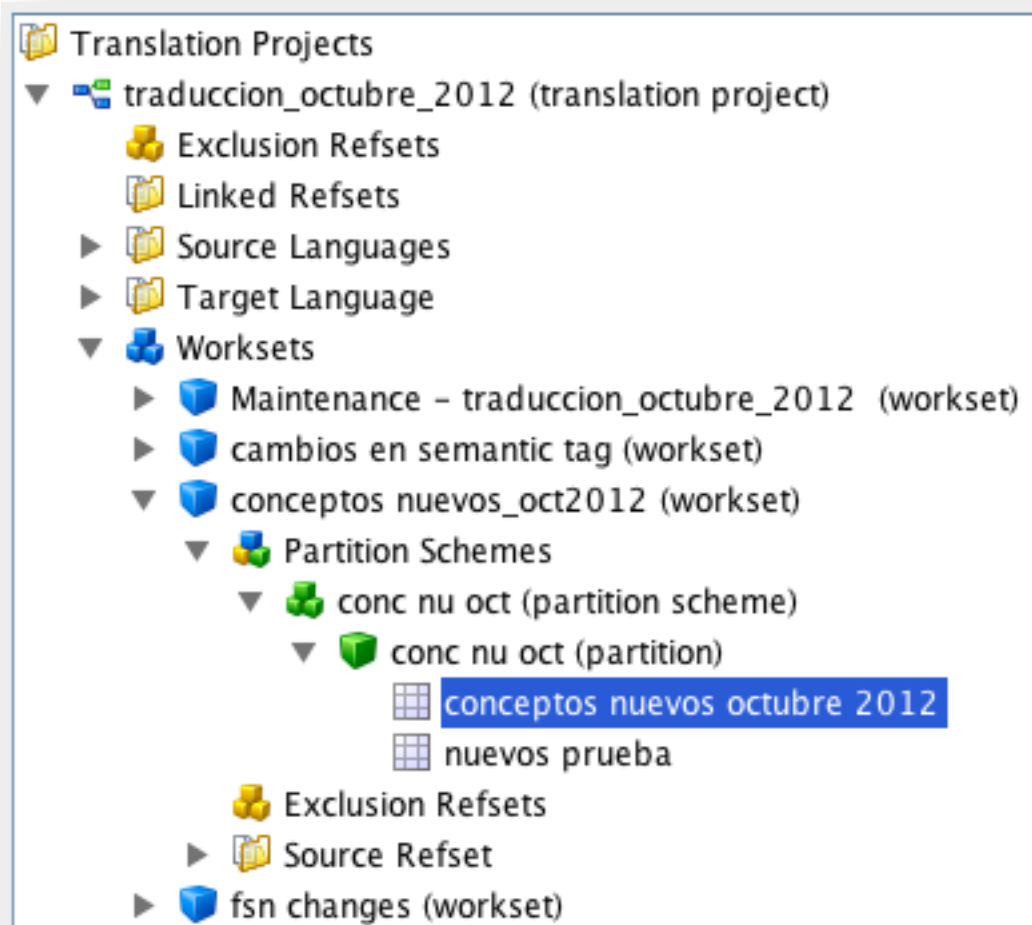
member count at last compute: 0  
time of last compute: never  
compute status: never computed  
compute type: concept  
refset status: current

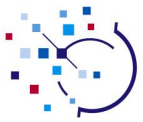
specification
comments

truth	clause
▼  OR	
	concept is: Courses (qualifier value)
	concept is descendent of: Courses (qualifier value)

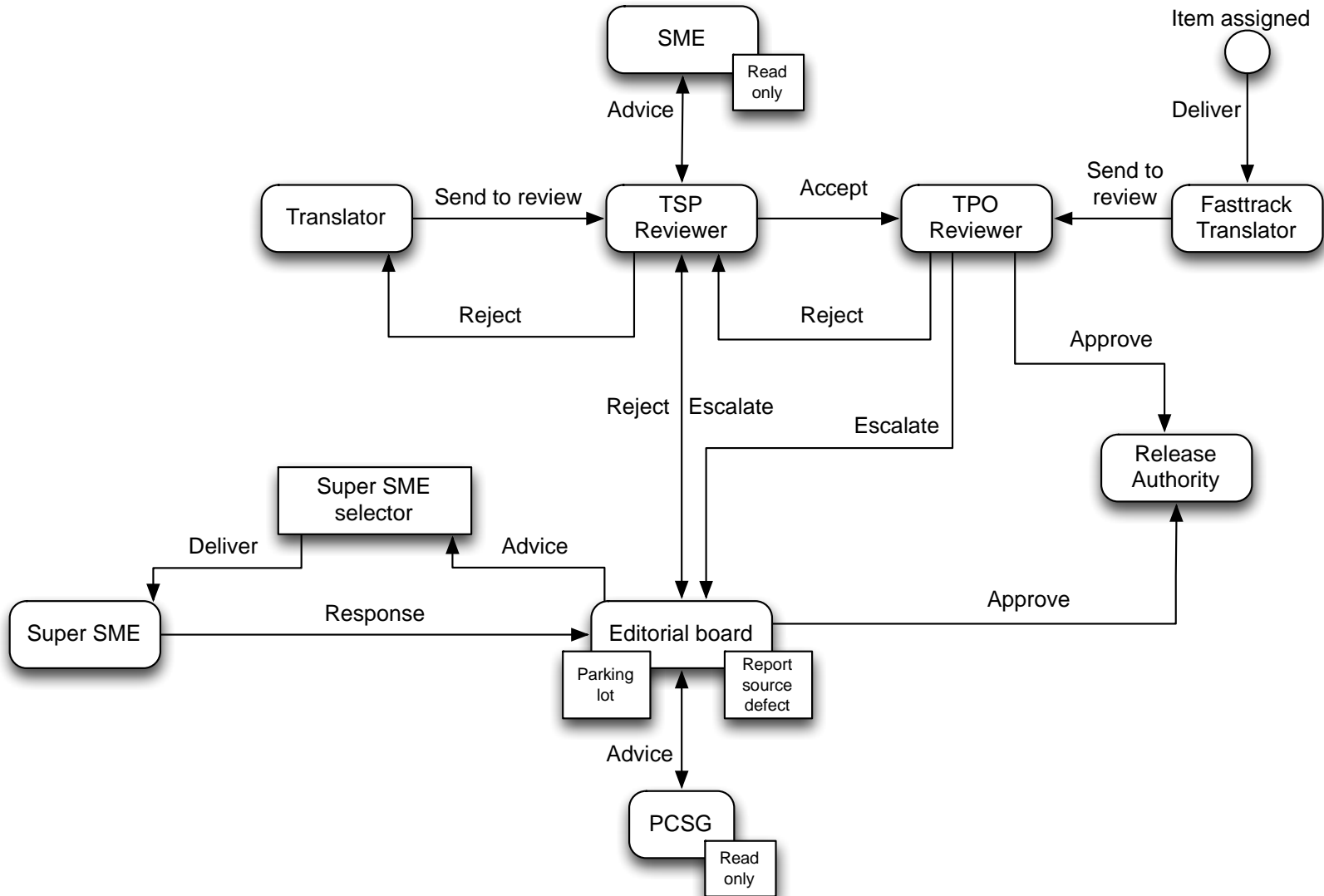


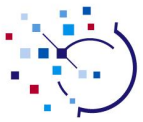
# Management of Batches





# Example Workflow





# Inbox

taxonomy
metadata
Project Manager
Inbox

Close
Refresh
Send
?

Inbox (5335)

Worklists

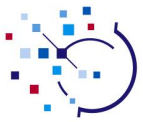
- correccion ya traducidos (100)
- espacio antes de semtag (96)
- maintenance octubre 2012 (335)
- descrip retiradas\_oct2012 (3439)
- cambio de preferido (1)
- descripciones reactivadas\_oct2012 (4)

+ Detach

Current item:

Automatically open next item in inbox after finishing...

Source preferred	Status
REFERS TO concept associatio...	approved for publication status
Suppurative inflammation	approved for publication status
Specimen collection education	approved for publication status
Burping	approved for publication status
Endoscopic removal of foreign...	approved for publication status
US scan venography of lower li...	approved for publication status
Closed fracture of bone of kn...	approved for publication status
Interstitial laser destruction of...	approved for publication status

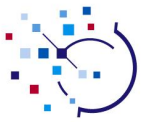


# Translation User Interface (UI)

The screenshot displays the Translation User Interface (UI) for the International Health Terminology Standards Development Organisation. The interface is divided into several main sections:

- Project Manager (Left Panel):** Shows a list of worklists under the 'Inbox' tab, including 'correccion ya traducidos (100)', 'espacio antes de semtag (96)', 'maintenance octubre 2012 (335)', 'descrip retiradas\_oct2012 (3439)', 'cambio de preferido (1)', 'descripciones reactivadas\_oct2012 (4)', 'derangement\_alteracion (11)', 'arteria humeral\_braquial (5)', and 'conceptos retirados\_oct2012 (108)'. Below this, there is a 'Current it...' section showing 'REFERS TO concept association reference...' and a checked option 'Automatically open next item in inbox after finis...'. A table at the bottom shows 'Source preferred' and 'Status' for various terms, with 'REFERS TO concept associa...' highlighted.
- Editor Window (Top):** Displays the current project name 'conjunto de ref...' and various tool icons like 'list', 'refSet spec', 'classifier', 'arena', and 'Project Properties'. The window title is 'Editor Window; User: sebastian-pm'.
- Source Language Table (Middle-Left):** A table with columns 'Lang...', 'Term...', 'Acce...', 'ICS', and 'Term'. It lists two entries: 'REFERS TO concept association reference set (foundation metadata concept)' and 'REFERS TO concept association reference set'.
- Target Language Table (Middle-Right):** A table with columns 'Lang...', 'Term...', 'Acce...', 'ICS', and 'Term'. It lists three entries: 'conjunto de referencias de la asociación SE REFIERE A (concepto de metadato fundacional)', 'conjunto de referencias de la asociación SE REFIERE A', and 'conjunto de referencias de la asociación SE REFIERE A (metadato fundacional)'. The second entry is highlighted.
- Translation Details (Bottom-Right):** Shows the 'Term:' field with the text 'conjunto de referencias de la asociación SE REFIERE A'. Below this, there are fields for 'Term type' (set to 'sinónimo (metadato del núc...)', 'Status' (radio buttons), 'Accepta...' (set to 'preferido'), and 'Is case significant?' (radio buttons). An 'Action' dropdown is set to 'Reject translation with stated...'. At the bottom, there are 'cancel' and 'commit' buttons.





# Translation panel

E[d]it [T]ools [V]iew [S]earch Act[i]on S:100 TM:6 LG:0 ?

**Source Language**

Lang...	Term...	Acce...	ICS	Term
				Contusion wrist, dorsum (disorder)
				Contusion wrist, dorsum

**Target Language**

Lang...	Term...	Acce...	ICS	Term
				contusión de muñeca, dorso (trastorno)
				contusión de muñeca, dorso
				contusión de la muñeca, dorso(trastorno)
				contusión de la muñeca, dorso

Comments
Issues

[A]dd Comment
Language comment ▾
?

Comments (0)
Web references (0)

Comment type	Comment

Term:

Term type:  Status:  ..

Accepta...:  Is case significant?  ..

Action:    ?

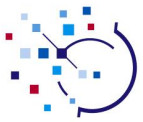
Concept Details
Hierarchy



# Collaboration

The screenshot shows a software interface with a 'Comments' tab selected. At the top, there are two tabs: 'Comments' and 'Issues'. Below them is a button labeled '[A]dd Comment' and a dropdown menu set to 'Language comment'. A second set of tabs below shows 'Comments (1)' and 'Web references (0)'. A table displays the following data:

Comment type	Comment
Language Refset: comment/standard comment	2012/10/17 17:08 // release authority role // <b>sebastian project manager:</b> -Problem with synonym



# Support tools

**Similarity** E[x]pand Hide ?

Source Text	Target Text	Status
contusion wrist,	contusión de mu...	approved for publi...
arthritis of wrist	artritis de muñec...	approved for publi...
closed contusion	contusión cerrada...	approved for publi...
contusion of	contusión de ma...	approved for publi...
open contusion	contusión abierta...	approved for publi...
ganglion of wrist	ganglión de muñe...	approved for publi...
arthrectomy of	resección de artic...	approved for publi...

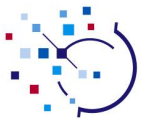
FSN
  Preferred
  Both
  Refine

Open new similarity search

**Translation Memory** Expand Hide ?

Pattern Text	Translated to..
dorsum of penis	dos du pénis
wrist	basipode
dorsum of nose	dos du nez
dorsum of hand	région dorsale de la main
dorsum of foot	région dorsale du pied
wrist joint	articulation du poignet

**Editorial Guidelines** Expand Hide ?



# Search documents

Search Documents

Search documents:

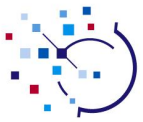
Search ?

Found 10 document(s) (in 2 milliseconds) that matched query 'synonyms':

- 1) [documents/IHTSDO 2008 IHTSDO-4.pdf](#)  
 for a Concept value is indicated by acceptability = 1(Preferred). Recognized **synonyms** are indicated that are true **synonyms** could be exchanged without affecting the meaning of the phrase. In restricted not be considered **synonyms** of the associated concept. Those descriptions should not be used in search
  
- 2) [documents/IHTSDO 2008 IHTSDO-9.pdf](#)  
 hits" caused by **synonyms** and multiple siblings with identical word matches  Integration of word Preferred Term and **Synonyms**. All keywords are regarded as case independent and are presented additional search capability in applications without greatly increasing the value of **synonyms**

cancel

commit



# Real-time Quality Assurance (QA)

Editor Window; User: sebastian-pm

Translation help | data checks

108 - Text should not have double spaces

refSet spec | classifier | arena | Project Properties | Translation | Import-Export | Checks

E[dit] [T]ools [V]iew [S]earch Act[i]on S:65 TM:0 LG:0

Source Language					Target Language				
Lang...	Term...	Acce...	ICS	Term	Lang...	Term...	Acce...	ICS	Term
US		★		Burping (finding)	ES		★		eructo (hallazgo)
US		★		Burping	ES		★		eructs ad osd
US		★		Belching	ES		★		eructo(hallazgo)
US		★		Eructation					

Term: eructs ad osd

Term t...: sinónimo (metadato del n... Status:

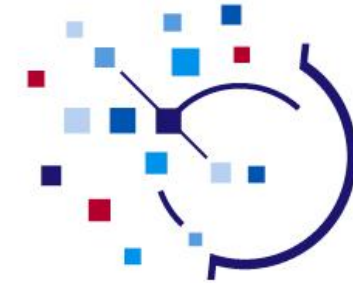
Accept...: preferido Is case significant?

Action: Reject translation with st... Cancel

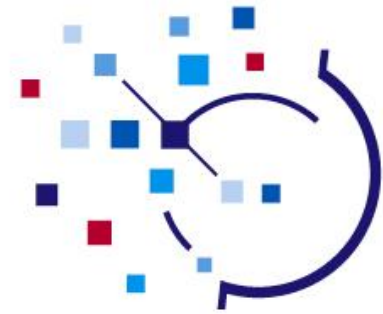
Concept Details | Hierarchy

▶ gas del tracto gastrointestinal superior - hallazgo (1)

■ INTERNATIONAL HEALTH TERMINOLOGY  
STANDARDS DEVELOPMENT ORGANISATION



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



Thank-you kindly for your interest  
and participation!

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