How to take medical translation into account while writing

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One-minute commercial break

- Specialized in medical translations only
  - (Bio)medical, pharmaceutical, trials, health, publications
  - Medical information (journals, publishers, news, associations, SNOMED RT, MeSH headings)
  - Medical devices, instruments, hospital systems
- All (30+) European languages (and Japanese) (soon Chinese)
- Experienced medical translators, native speakers of target language, living in-country
- Central staff of project/quality managers and editors
- We use language technology were suitable

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Agenda

- Brief introduction to medical translation
- Causes of translation quality problems
- Source text-related problems, causing translation problems
- Consequences of translation errors
- Cost aspects of translation and translation errors
- Conclusions, or: What can the medical writer do to prevent these problems

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Introduction to medical translation

- Shortest possible overview of a long history
- Profile of medical translators
- Types of medical translation work
- Specific translation-related tools (translation memory)
- Steps in process, and cost of quality medical translation

Concise history of medical translation

- During Middle Ages medical text were translated from Arabic, Greek, Hebrew (and other Middle-East languages) into Latin
- From 12-14th century, also other medical texts were translated into Italian, later also into Spanish and French, still later into Dutch, German and English.
- Salerno (Italy) first 'western' medical school (est. 9th century AD)
- 'Regimen Sanitatis Salernitatum', written in 10th century
- Robert of Normandy, son of William the Conqueror, brought it to England, on way back from Crusades
- English version ('Salerno Book of Health') in 1607 by Sir John Harington (inventor of WC !) and it was referred to until well into the 19th century!

Profile of medical translators

- Linguistic or medical background? (7:1)
- Medical background can be diverse: paramedical, biomedical, nursing, pharmaceutical
- Women or men? (6:1)
- In any event, many years of experience is prerequisite to do a good job (and make a living)
- Most medical translators are freelance
- Preferably full-time involved in medical translation; some are ‘moon-shiners’
- In many cases spouse/partner active in medical

Reasons to translate

- Legal requirements
  - FDA, EMeA (European Medicines Agency)
  - EU Directives
    - Medical Device Directive (MDD)
    - In Vitro Diagnostics Directive (IVDD)
    - Active Implantable Device Directive (AIDD)
    - Directive 2004/27/EC concerning human medicines (Nov. 2005)
- Marketing requirements
  - Follow competition; some markets are large enough; in some countries poor command of English; translation contributes to high-quality image of product
- Internal requirements
  - Translated training materials more effective than English
  - Takes away the 'not invented here' issue

Types of medical translation work

- Medical devices
  - Documentation for CE mark, Instructions for Use, packaging, labels, software (user interface & help)
- Medicines
  - Professional and patient information, product registration dossiers, informed consent forms
- Clinical Research Organizations (CROs)
  - Clinical trial protocols, questionnaires, informed consent forms, instructions for investigators, patient reports, study results
- Medical information publishers
  - Medical journals, publishers, professional organizations, patient organizations. Text books for med school and for general public (Merck Manual Home edition)

Specific tools for medical translators

- Fully loaded PC, as for any other translator
- Dictionaries, reference materials
- Text analysis tools (WordSmith, Oxford UP)
- Tools for glossary building and maintenance
- Translation memory tools such as Trados (effective for texts with segments that were translated earlier)

- Perhaps: Quality Assurance tools (QA Distiller, ErrorSpy) to check consistent use of specific terms, numbers/ values, completeness)

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Steps in quality medical translation

- Project preparation and planning
- Linguistic preparation
- Translation
- Editing (medical and text)
- Proof reading
- Validation by external specialist
- Incorporate changes
- Customer review and incorporating comments
- Final page formatting
- Check proofs (layout, hyphenation, illustrations)
- Continuous maintenance of dictionaries and memories
- QA: back translation, certification, readability test
- Administrative round-up

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Cost of quality translation

Translation (freelancer)		€0,10
Medical edit		€0,03
Text edit		€0,02
Proof reading		€0,01
Project management		€0,02 (10% of sales)
Overhead		€0,05 (20% of sales)
	Total	€0,23 per word

Cost of writing vs. translation

- Ratio of writing:translation = 8:1
  - Translate rather than write, but high-quality source text is key
- Best thing to do is: First-time-right
  - If you fix a writing error, this means revision work in up to 25 different languages
- Translation doesn't have to be expensive
  - … but only as long as the process is smooth (but updates and corrections take lots of time and have associated risk of incorporating errors

Causes of translation quality problems

- Incompetence of translator (or of coordinator of translation company)
  - Translator not as good as pretended to be
  - Customer made selection error
  - Customer looking for cheap deal ('pay peanuts, get monkeys')
- Not enough time
  - A competent translator can't do a quality job even on a high-quality source text if there is simply not enough time
  - "Why is it that there is never enough time to do it right first time, but there always seems to be plenty of time to redo the work?"
- Shortcomings of the source text

Source text related translation quality problems

- Actual contents of source text
- Lack of ‘internationalization’ (i.e. text was not written with translation in mind)
- Issues related to format of document

Source text problems

- Typing errors or choice of wrong word
- Writing errors
- Ambiguities

Typing errors / wrong word

- 0.001 vs. 0.01: difference of a factor 10, which may kill a patient
- Milligram (mg) vs. microgram (μg, sometimes [wrongly] also abbreviated as ‘mg’); difference of factor 1,000 !
- Nephritic syndrome vs. nephrotic syndrome
- Arthritis vs. arteritis (inflammation of joints vs. arteries)
- Ureter vs. urethra (proximal vs. distal from bladder)
- Ureteritis vs. urethritis (inflammation of ureter vs. urethra)

Writing errors

- The mask must be applied in order to avoid leakage. Optimal application can be verified through the monitor Vti versus Vte.

- The nebulizing chamber may be cleaned only by wiping off the nebulizing chamber and connection cable with a soft cloth moistened in soap & water or detergent based disinfectant.

- The values that are displaying will also be used also during afore mentioned flashing. Solutions other than 70% ethanol may impair in the function of the flowmeter."

More writing issues

- Avoid non-standard abbreviations and acronyms (write them out at least once)
- Correctly use superscript vs. subscript:
  - m2 vs. m^2
  - Cmax vs. C_{max}
- What does ‘should’ mean: ‘must’ or ‘it is recommended’
- Trade names vs. generic names: always mention generic name
- Avoid vague units such as ‘a dropperfull’: how full is it? To upper calibration mark, or brim full, or a dropper supplied with different product?
- For literature references, use the ‘Vancouver Guidelines’ by the International Committee of Medical Journal Editors (ICMJE)

Ambiguities

- Don’t use different terms for the same concept, or the same part of body or of medical device
- Words may have different meanings and you always have to imagine how readers (and translators) may take the wrong one

Lack of 'internationalization' or: Text not written with translation in mind

- References to local or national conditions and circumstances
- USA-specific:
  - References to Hispanic population, US statistics, HMOs, MediCare, certain micro-organisms living on the west bank of part of the Missisippi river
- References to sports often make no sense elsewhere
- References to animals sometimes inappropriate
- Some symbols not known abroad or inappropriate
- Illustrations and colors not always OK in other cultures
- Jokes, humor, certain expressions usually don't travel far…

Document formatting issues

- Choice of DTP product crucial
  - Use it professionally, because poor formatting of original often creates problems during translation
- Texts in illustrations
  - Make sure the translator can reach them
- Fonts
  - Use fonts that are generally available
- Index
  - Always use index markers

More document formatting issues

- Layout: leave space for expansion
  - Allow up to 25% extra space for body text, up to 100% for headings, up to 250% (!) for short headings or names on keys or buttons
  - Some examples:

ENG: Effects on ability to drive and use machines
DUT: Beïnvloeding van de rijvaardigheid en van het vermogen om machines te bedienen

ENG: Incompatibilities
DUT: Gevallen van onverenigbaarheid

ENG: MARKETING AUTHORISATION HOLDER
DUT: HOUDER VAN DE VERGUNNING VOOR HET IN DE HANDEL BRENGEN

ENG: Cat lab
DUT: Katheterisatiekamer

More document formatting issues

- For Asian languages, Arabic, Hebrew etc. formatting starts almost from scratch, due to different reading direction (right to left and/or top to bottom)
- PDF files are good for viewing and printing but not suitable as translation source: always provide underlying file (Word, FrameMaker, Quark Xpress, InDesign etc.)

Consequences of translation problems

If errors are not noticed before printing/distribution:

- Recall of products (and reprint information, repackage, sometimes resterilize, and reship products)
- Patients may be injured or die -> law suits, bad publicity

Usually problems are noticed before distribution, but:

- Registration process (EMeA) is delayed until last language is approved (shortening the patent protection window)
- Information may not pass newly EMeA-required ‘readability test’

  -> revise and retest text -> shorter patent protection window

Keep audience in mind

- Don’t write what you know, write what the user/reader needs to know
- Don’t write more than necessary
- Write for proper level (readability test result JAMA Patient Page: ‘college level’)
- In EU: readability test – patients need to actually understand patient information (PIL has not merely a legal function)

Use less words

- Reduce text volume means lower translation cost: say the same in 9,000 as in 10,000 words, and save $250/language + related cost savings (5 pages less DTP work, trees, postage)
- Use standard text blocks (this will help increase consistency of your texts, and reduce time and cost of translation)
- Be less verbose and save on translation cost:
  - In view of the fact that -> as
  - With respect to -> on
  - A certain number of -> some
  - The majority of -> most
  - With reference to -> about

What more can the medical writer do?

- As far as you can influence this: allow time
- If cost of translation is an issue: write less!
- Write unambiguous and clear, which is also good for any reader
- Assume translators can't contact you, and that they usually don't see the actual device (instrument, machine, what have you…)
- Take translators' questions seriously. They don't illustrate their ignorance, but their commitment! If something is not clear to a translator, it will probably be unclear to many readers (but théy just keep reading), so you'd better take advantage
- Build and maintain company-wide glossary (with definitions) and make this available to in-house colleagues ánd to translators
- If text hás to be local, internationalize it before translation
- Take translator into account while writing!

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And the result will be…

- Time savings
- Cost savings
- Higher quality of translations

Questions?

- Please speak up now, or right after this session, or visit our website
- Download the handout of this presentation from www.medilingua.com (and then select ‘Articles’)
- E-mail me: simon.andriesen@medilingua.com

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