



## Medical Translation: What Is It, and What Can the Medical Writer Do to Improve Its Quality?

By Simon Andriesen

The translation of medical documents (referred to as “medical translation”) is not just a service “down-stream” of medical writing but should be taken into account during the writing process. If such consideration occurs, the quality of the translation will go up, the time needed for translation will go down, and, as a result, money will be saved. Medical translators can do a better job and work more efficiently if they don’t need to resolve issues with the source text.

Today, the output of medical writers may be translated into any language; for example, documents written in English may be translated into Spanish for use in the United States or into one of the other official languages of the European Union (EU) for use in Europe. Translation is usually quite a bit less expensive than writing, but translation into more than just a few or even into all official EU languages can be costly. Whatever can be done during the writing process to facilitate translation will have an effect on cost and—sometimes more importantly—time. Translation is also a “risk opportunity,” ie, an opportunity to introduce errors. When something goes wrong with the translation of a medical document, serious consequences may occur: a patient may die, or the US Food and Drug Administration (FDA); its European counterpart, the European Medicines Agency (EMA); or similar organizations in Asia may delay authorization for the marketing of a product. Such delays are rather serious, as they shorten the patent protection period during which the investment in the development of drugs or medical devices is earned back. Also, a delay in the authorization to market a drug or other product means that the patients who can benefit from its use must wait longer.

### Why translate a medical document if everybody speaks English?

Apart from the obvious marketing reasons to translate medical information and the genuine intention to make sure that clinicians and patients understand how to use a drug or medical device, there are many legal reasons for medical translation. Several EU directives concerning medicines as well as different types of medical devices, in vitro diagnostic tests (such as pregnancy tests, tests to measure cholesterol, and tests to detect hepatitis C or HIV infection),

and implantable medical devices (such as pacemakers) specify what information needs to be available to users. Within the EU, there is a legal requirement that this information be translated into the official languages of the countries where the product is sold. If this translation does not happen, the medicine or the medical device cannot be sold legally in that country. To not translate is not an option.

### What does a medical translator look like?

First of all, most translators look like women. Actually, 6 of every 7 translators are women. Another characteristic is that their background is most often in the study of languages or translation, but quite a few (approximately 20%) have a medical background. No matter where they come from, good medical translators have many years of experience and are usually involved in medical translation most or all of their time. Medical translators typically are independent contractors—practically no in-house translation department with staff translators has survived the outsourcing trends of the 1980s and 1990s.

### What types of work do medical translators do?

Most of the documents that medical translators translate concern medicines, clinical trials, general medical information, and medical devices. Typical types of documents that are translated are instruction manuals for medical devices, material about medicines for health care professionals and patients, protocols for clinical trials, patient questionnaires, and articles from medical journals. It is probably safe to say that anything AMWA members write, medical translators across the world may translate.

### Why is translation more common in Europe than in the United States?

Medical writing should be done at or near the site of product development. For this reason, there are many medical writers in the United States. In fact, the membership of AMWA (approximately 5,300 members) is almost 10 times greater than that of its European counterpart, the European Medical Writers Association (EMWA). In contrast to medical writing, medical translation should be carried out in a location near that of the end user, preferably in the country where the target language is spoken. Therefore, there are

more medical translators in Europe than in the United States.

### **What are the causes of problems seen in the quality of translation?**

The following are 3 main causes of problems in the quality of translation.

- Incompetence of the translator
- Lack of sufficient time for translation
- Shortcomings in the source text

Although the problems caused by an incompetent translator can be avoided if the customer hires one that is highly skilled and has adequate time for the job, finding such a translator can be difficult. Sometimes translators or translation companies will overestimate their ability or do not want—cannot afford—to refuse the work. Problems due to incompetence can also be the result of a customer looking for a cheap deal.

A second cause of poor quality in translation is a lack of adequate time for translation. Very often, there is simply not enough time available for the translator to provide the amount of care that high-quality translation requires. No matter how well the source text has been written and no matter how qualified the translator is, if there is not enough time to do the work, the quality is jeopardized.

The third cause of problems in the quality of translation—shortcomings in the source text—is one that the medical writer can help to prevent.

### **What kinds of problems are seen in the source text?**

The source text can have shortcomings in 3 main areas: 1) content, 2) extent of “internationalization” (ie, “translation readiness” or “world readiness”), and 3) format and layout. The content may have problems such as typographical errors, incorrect uses of terms, errors in writing, and ambiguities. For example, an incorrectly placed decimal point in 0.01 mg results in a difference of at least a factor of 10; such an error in a dose of a drug could kill a patient. In addition, a spellchecker would accept both “nephritic” and “nephrotic,” “arthritis” and “arteritis,” or “ureter” and “urethra,” but the words in each pair have different meanings.

Other problems in the source text that translators have to solve involve issues such as the use of nonstandard abbreviations and acronyms (the word or words should be written in full at least once), the trade names of medicines (the generic name should also be used), and vague terms (eg, “dropperful”—Does this term mean that the dropper should be filled to the upper calibration mark or to its brim? Can a dropper supplied with a different product be used?). Another example of a vague term is “should”: does the word mean “must” or “it is recommended”? In such cases, the author should clarify; the translator can select only one meaning, and if clarity is absent from the source text, the

word or phrase with the wrong meaning may be used in the translation. In general, it is better to not use different terms for the same concept or terms that have different meanings, unless you are sure the reader cannot misunderstand.

If a text is “internationalized,” it is “translation ready” or “world ready.” Such a text should be free of local or national circumstances or references to local populations and statistics, unless they are relevant to the expected readers. Also, the writer of a translation-ready text will have been very careful in his or her selection of illustrations and colors. Many of us consider dogs to be great pets, but in many parts of the world, a reference to or a picture of a dog is culturally offensive. Pigs are sometimes considered to be more offensive in particular regions, and in some cultures even an illustration of a woman may send the wrong message. Cultural differences are also associated with colors: in the Western world, red often refers to happiness, but in other cultures red has a different connotation. In the West, we associate black with death and funerals, but in China the color white has that association. Authors in the United States and Latin America should avoid the use of phrases such as “first base” and “bottom of the ninth” if their documents will be read or translated in Europe; baseball doesn’t mean a thing in Europe. And like good wine, humor usually does not travel very well.

### **What format and layout issues affect medical translation?**

Most European languages need more space than English. The writer and/or designer should allow as much as 20% more space for normal body text, 100% more space for headings, and 250% more space for short headings and for engraved terms on key caps, buttons, or machines. The translator should be enabled to access (and change) the text in illustrations and to use fonts that are generally available. The author should always use index markers to generate an index, which will facilitate generating a translated index. For languages such as Arabic, Hebrew, and Japanese, the page formatting has to start almost from scratch, because of the differences in the direction in which these languages are read (top to bottom or right to left). PDF files are not suitable as input for the translator; the underlying file, which is usually saved in Quark, Word, PageMaker, or InDesign, should be provided to the translator.

### **Which is more expensive—writing or translating?**

The cost of medical writing is around 8 times higher than the cost of translation. It is therefore better to write 1 document and then translate it into the required languages; in such a situation, a source text of high quality is key. At \$0.25 or so per word, translation does not have to be expensive, but the expense of translation is low only as long as the process is smooth. Updates and last-minute corrections require much energy and create an opportunity to intro-

duce errors. It is obviously better to fix a writing error in the source text before translation than it is to correct an error in 25 different translations.

### What are the consequences of problems in the quality of translation?

The certification process of medical devices and the marketing authorization application for medicines can be delayed if there is a serious problem with even just one of the translated documents. This delay means a loss of time-to-market and, in the case of medicines, a shortening of the patent protection period.

If a translation problem ends up in printed documents distributed to patients or other users, the consequences may be more severe. If something goes wrong with a drug or a medical device and the patient or the user of the device feels that the information or the instructions were unclear, this lack of clarity in the translation may very well lead to lawsuits, which cost money, hurt the corporate image, and may eventually bring a company down. If medical writers keep translation in mind as they write, they can help prevent problems in translation.

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