

Medical translation basics

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Translation of medical literature involves many aspects of human health: drug prescription information, medical device manuals, medical and pharmaceutical patents, clinical trial literature, patient education and medical history. Due to the impact of medications and medical devices on people's lives, it is especially important to avoid errors in comprehension or suppression of information.

For any given medicine or medical device, in the situation of a regular treatment or in a clinical trial of a new medicine, this information needs to be explained clearly in the patient's native language in any country where the drug or device has been approved for the respective market.

The consequences of wrongful information due to translation errors can, for example, result in incorrect dosages of medications and can jeopardize a person's life. Therefore, medical literature requires translators who are highly specialized in this field and who are extremely cautious about terminology and the exact translation of subject-specific terms and phrases. Professional translators know that many bilinguals are not as fluent as they think. A self-proclaimed bilingual with a passing knowledge of a foreign language who uses a bilingual dictionary to struggle through technical documents in the foreign language can easily overlook or misunderstand fundamental points.

Two examples have been reported showing the dramatic effect that even a minor mistranslation can have. One involves the story of a knee endoprosthesis that was incorrectly implanted due to a flawed translation at a Berlin hospital in 2007. Prosthesis labels that were marked "Non-Modular Cemented" had been mistranslated as *zementfrei* (not requiring cement). Due

to this mistranslation, 47 prostheses were implanted without cement, and this caused difficulties for the patients' health. The hospital had to offer the affected patients costly remedial surgeries. The press reports also mentioned large compensation claims on behalf of the patients and claims from health insurance companies. A manufacturer of the knee implants stated that the outer packaging was in English only, in full compliance with German law. However, a detailed manual in German was included inside each package. According to the implant manufacturer, the mistranslation of labels was not a language issue, but an issue of internal quality control procedures at the Berlin hospital. In any case, the language factor entered the story and caused troubles and problems for all parties involved – the manufacturer, patients and hospital.

Another case occurred between 2004 and 2005 at a hospital near Epinal in eastern France, where men suffering from prostate cancer received massive overdoses of radiation treatment. As a result, several patients died, and dozens of other patients were also affected. The regulator of the French health care sector investigated the case and found several problems at the hospital, including language translation issues. The dose defining software used for cancer therapy in the hospital at Epinal was in English only. A user manual in French was not available. So the hospital's administration relied on bilingual staff members who used the software. These tragedies remind us once again that proper translations made by experienced and specialized professional translators can help reduce risks of translation errors in the health sector.

With today's globalization, more and more medical and pharmaceutical patents are translated all over the world with the intention of submitting these documents as patent applications to countries other than that of the inventor in order to obtain broader and international patent protection for new inventions and future products. Usually, the patent consists of an introduction, detailed description of the invention, claims and a concluding summary or final abstract. The patent claims are comprised of an extensive list of what type of methods, technologies or procedures



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are covered and legally protected by the invention's discovery, and they deserve particular attention during translation because they are most often disputed by competing pharmaceutical companies in patent suits. For this reason it is important to also include the final revision with an expert in the medical field and its target language (TL). Usually, the introduction can be hard to understand for the translator, and then once he or she works on the project, it tends to become easier. To cut the research time for the translator, the availability of glossaries is always a great advantage. Furthermore, previously translated patents in the same subject matter or field help reduce the efforts for translation and are just as important to improve the efficiency and consistency of the TL and its terms. It tends to be much easier to work with the same translators or translation team to maintain consistent quality. Even when a preexisting translation memory (TM) is available, a highly knowledgeable translator is still needed. Basic linguistic skills and reliance on an extensive TM alone will not suffice for quality medical translation.

The qualification of translators, competence, certification, back translation, editing and quality assurance represent the essential ingredients of a successful and precise medical translation. It is also strongly advisable to check on translators' references and to review samples and other proof of their personal expertise in medical translation.

Initiation of new translation projects begins with creating a glossary of the major subject terms. We collaborate with many translators and always observe how important it is to have translators with not only linguistic skills but the capability of clearly understanding the medical or pharmaceutical subject matter. Ideally, translators should understand a broad range of complex procedures and experiments in laboratories and the medical practice. Even if the individual is a certified medical translator or interpreter, it is paramount for him or her to be in touch with the current progressions and innovations in the medical field, keeping abreast with recent medical and scientific journal articles.

Obtaining a good translation

Medicine is a field of knowledge in accelerated scientific and technological development that each year incorporates

a large number of new terms into the medical lexicon. Because of the need to quickly update their knowledge, health professionals learn directly in the original language of the publication and stick to it in daily usage, as medical interpreters or translators have to continuously read and educate themselves in the field terminology. It is only much later that the first attempts to translate these terms start to timidly appear, and this leads to further problems. For many words, it is not easy to find suitable corresponding terms in the TL, thus making translation difficult. The correct translation of new terminology has to be introduced by a translator who is an expert in the medical field in order to render the target text so that it is not only easier to understand but also to make sure errors, such as the previously mentioned mistranslation at the Berlin hospital, will be avoided.

There have been an increasing number of requirements and higher standards implemented by pharmaceutical corporations, requiring a lot of additional time for auditing. While this trend of all the respective ISO certifications in more stringent quality control is understandable from a safety and liability standpoint, the entire process of editing and verifying documents becomes extremely tedious and time consuming and at times still results in a loss of culture-specific, understandable content of the entire translation project itself.

The best outcome for a medical translation project lies in relying on specialist-trained medical translation project managers, translators, editors and proofreaders. Often, specific medical and pharmaceutical research subject matters need to be translated under the guidance or with the assistance of a translator and editor holding either a medical degree or a scientific degree, rather than just by a generally certified translator, even one operating in an ISO environment. Rocio Txabarriaga states in the article "About Translation Standards" that "the real indicators of proficiency in translation are knowledge of the subject matter, knowledge of relevant terminology, the ability to discern meaning in context and transfer it within the target language constraints, i.e., accurately (all meaning has been transferred), precisely (all nuances of the language, tone, intent, style have been preserved in the target language), correctly (grammar, syntax, orthography rules have been observed), completely (no part of

the original was omitted and nothing has been added to the target text), and consistently (specific terms, stylistic elements and language-specific norms have been consistently used throughout)." While of importance for the entire translation industry, this statement could not be more crucial for medical translation. Constant communication between the client and the project manager is also of utmost importance to resolve uncertainties in understanding the material. Project managers can then clearly explain any issues to the medical translator or editor. The project manager also utilizes his or her medical expertise to fix occasional writing errors in the source text before the translation. This is especially helpful if the source text will be translated into different languages and helps to prevent transferring those errors into the TL translations. If a document is translated the first time with expert understanding of the subject, the better the quality outcome of the final document. Many small specialized translation companies follow this structural approach rather than opting for a high-throughput, low (initial) cost approach – a procedure that is often adopted by some large translation corporations, who then spend much time and money fixing incorrect translations during the editing and proofreading process. Updates and last-minute corrections require much energy and create an opportunity to actually introduce new errors.

Finally, if translation companies are committed to the products they provide, they must pay professionals satisfactorily. Poorly paid work leads to rush jobs, consequently lowering the quality of the final result. These measures will help improve the quality of medical text translations. All things considered, it is worth investing in a project from the beginning with a well-trusted medical translation team. **M**

References

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