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# **IMIA Guide on Medical Translation**

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## IMIA Guide on Medical Translation

Most people who work in the medical community in the United States have encountered the need to have written materials available in other languages to serve Limited English Proficiency (LEP) populations effectively. Currently, no generally accepted set of guidelines for managing translations in the medical setting is available at the national level. And while several organizations at the state level, as well as health insurance companies and non-governmental organizations have created standards and guidelines in an effort to formalize processes, none have been universally adopted.

The standards set forth by the American Translators Association (ATA) have applicability in the medical field, but only at a general level. Also, there is no subject matter translation certification in the United States, and current federal law addresses the provision of language services to LEP populations without delving into the particulars of translation quality control.

Guidelines such as the Culturally and Linguistically Appropriate Services (CLAS) standards are created to address a specific aspect of the provision of language services (in its case, the cultural aspects), and without a comprehensive set of universally accepted translation standards for the medical field, those involved in providing care for immigrant populations do the best they can with the information at hand. As a result, translation management in many medical settings is a matter of constant improvisation, with decision making and linguistic tasks often falling in the hands of bilingual personnel or interpreters who lack the experience and/or the skills and knowledge to create, implement, and monitor an effective process, and least of all to carry out translation tasks.

The objective of this document is to provide an easy to use set of translation management and quality control guidelines for those in the medical field.

Instead of a compilation of data from the resources listed above, it is a “frequently asked questions” document for quick consultation, which also provides references for those wishing to learn more about any particular topic.



The next few pages will help to:

- Identify the different stakeholders in the translation process, their roles and responsibilities
- Clarify the role of interpreters/medical practitioners with regards to translation
- Include a profile of a person qualified to undertake medical translations
- Offer guidelines for managing and standardizing the translation process
- Provide a set of quality standards
- Provide standards for formatting documents intended for translation
- Identify reference sources for further research

For purposes of this guide, documents written in English are referred to as “source” documents, and translated documents are referred to as “target” documents.

## Who is qualified to translate medical documents? And who is qualified to validate translated documents?

### The Profile of a Competent Translator

Translating medical documents accurately requires a native or near-native, formal level of language proficiency, analytical capabilities, and deep cultural knowledge in the source and target languages. A medical translator has formal education in the source and target languages at least at the college level (and ideally has received instruction in translation theory and practice), is an expert on the terminology of the subject matter, fully understands the source text, can write correctly, and makes use of very specialized dictionaries. Professional medical translators also conduct terminology research to validate equivalents in the target language, particularly when translating into a language with several regional variations, and/or to understand a term in context.

"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)" ([Txabariaga, Rocio, 2005](#)).

### Certification

The American Translators Association (ATA, [www.atanet.org](http://www.atanet.org)) offers a general certification in many language combinations. Translators who hold this credential have passed a rigorous test and must earn educational credits on an annual basis to maintain it. ATA-certified translators must also abide by a code of ethics and standards of practice set forth by the organization.

### The perils of machine translation

Of course, there are cases in which a translation is needed urgently in a medical setting and nobody with the above mentioned qualifications is at hand to help. This situation is addressed later in this document, but practitioners are **strongly cautioned** against assigning translation tasks to

just any individual based on language proficiency, and/or using machine translation services (automated translation, often through Internet). Machine translation services are useful to gain general understanding of a piece of text, but never appropriate to produce official or publishable documents. In the medical field, using machine translation is particularly dangerous, and can lead to very serious misunderstandings and adverse consequences. The example below illustrates just how inadequate machine translation can be (machine translation rendered by Yahoo Babel Fish, <http://babelfish.yahoo.com>):

**English:** Women with this disorder appear to exhibit increased humoral immune responsiveness and macrophage activation while showing diminished cell-mediated immunity with decreased T-cell and natural killer cell responsiveness.

**Spanish:** Las mujeres con este desorden aparecen exhibir la activación inmune humoral creciente de la sensibilidad y del macrófago mientras que la demostración disminuyó inmunidad transmitida por células con sensibilidad del T-cell disminuido y de la célula de asesino natural.

In the example above, the word "disorder" became disorder in the sense of confusion or mess in the target language, but in the medical context, a proper equivalent exists and it is "trastorno." The verb "appear" was translated not in the sense of appearance, but in the sense of turning up. "Natural killer cell" became "the cell of the natural assassin." Those are just three errors among the many found in this machine-translated passage.

### Back translation

Back translation is not recommended either, whether performed by human or machine, as it will most likely fail to indicate the target language contextual and usage nuances. In some cases, the back-translated text may actually look appropriate in the original source language because the rendition will be literal. Back translation of a text translated by a professional medical translator is not recommended either because in many instances adaptations made by the translator which perfectly convey the meaning of the original (in a meaning by meaning transfer, the way it should be) are lost in the back translation, and give the appearance of an inaccurate rendition.

## Quality Assurance

Reviewing a translation should also be a carefully monitored process: Cases abound where bilingual staff have modified a translation only to introduce errors to otherwise correct text. If the person reviewing a translated document is not a professional linguist, the best procedure is to comment or ask the translation vendor about any questionable items. Making arbitrary changes to a translated document reverses any quality control mechanisms demanded of the translation vendor and may create unnecessary delays and higher costs. If an internal reviewer questions the quality of a translation, a better option is to have a second translation vendor evaluate the project and comment on the items being questioned.

It may also be helpful to become familiar with accepted standards for translation and the medical industry, which may clarify a lot of issues and help as additional guidelines in the creation and implementation of a translation and quality management process. There are also several resources on line, among them free publications or documents available for sale from sources such as the ATA, the Localization Industry Standards Association (LISA, <http://www.lisa.org>), the American Society for Testing and Materials (ASTM, <http://astm.org/>), the International Organization for Standardization (ISO, <http://www.iso.org>) and the Multilingual and Computing journal (<http://www.multilingual.com/irCategoryList.php>). To see a list of specific standards, consult the References section.

### Are all interpreters qualified to provide translation services?

No, unless they meet the previously described profile, and are thus qualified to translate. In actual practice, however, interpreters are some of the first people called on to perform either written translation or sight translation (an instant transfer from written to verbal language), whether or not they have the skills to do this.

Sight translation is a useful way to verbally communicate the contents of a document, particularly when time is of the essence. To accomplish this, a person reads from a source document and immediately speaks the information in the target language. This is a sophisticated skill that some interpreters who are not practicing translators should have. Ideally, sight translation

should be conducted with the same rigor, skills and knowledge applied to written translation, but given that the latter is a much less realistic situation when language transfer is urgently needed, at the very least interpreters should be appropriately trained and required to acquire basic sight translation and written translation skills for non-publishable text.

In no case, however, should a translation meant for publication be translated by somebody other than a professional translator. To do so is to risk releasing erroneous information, with all its implications, legal and otherwise.

### Are all bilingual medical practitioners qualified to translate documents?

No. Bilingual medical practitioners would need to have the profile described above to translate competently. Just like the medical profession, translation is a profession that must be taken seriously, and which requires formal education in certain areas as well as specific skills. A medical doctor would not allow a tailor to perform surgery on a patient just because the tailor's expertise at cutting, and by the same token bilingual medical staff should not be asked to, or be expected to perform translation work just because they have a level of fluency in a particular language, often acquired in a family environment and not formally. Please see item 3 in the References section for links to articles about informal language acquisition.

Examples abound of medical documents which were poorly translated by individuals who either qualified themselves to translate, or who were forced by others to translate by virtue of their language fluency. The errors found in these often incomprehensible documents can become a liability for the institutions where they were translated, and defeat the ultimate purpose of document translation: that of communicating accurate and clear information to a person while abiding by the laws that protect the rights of LEP patients.

Likewise, no person without the necessary qualifications should perform editing or proofreading, two necessary steps in the translation process. Ideally, the qualifications and credentials of the person editing a translation greatly surpass those of the original translator, e.g., if the translator is an ATA-Certified professional, then not only should the editor have a matching credential, but also significantly more experience and perhaps a

higher educational level than that of the translator. The final proofreading should be conducted by somebody with an expert level knowledge of translation standards and formatting rules in the target language.

Translation agencies which abide by accepted industry standards should be able to disclose the process for selecting the translator, editor and proofreader. If an institution is working with individual translators, it is imperative then to understand what the process of translation, editing and proofreading entail, so as to evaluate and select the appropriate talent for each task. Checking on references, samples and other proof of expertise in medical translation is also strongly advised.

**Why should medical documents be translated? Which documents are priorities?**

Medical documents exist for many reasons. They are created to educate and inform the public about health matters, to obtain legal consent for treatment from patients, to establish guidelines and procedures that the general public must follow, etc. It is only logical for such important documents to be available for diverse populations with limited or no command of English in their native languages. Translating medical documents based on certain criteria is not only the right thing to do from an ethics perspective, but also another way in which compliance with current laws protecting the rights of LEP patients to language access is assured.

A distinction should be made between those materials which are expected to be available per the guidelines set forth in government mandates, and those which are created based on requirements at the regional level, and at the institutional level (based on medical personnel, patient demand, and actual use).

When deciding which documents ought to be translated, the following criteria should be observed:

- **Compliance with Title VI.** The Department of Justice announced earlier this decade four factors that federal fund recipients should use to determine the steps they should take to assist LEP patients:

According to the document found at [www.healthlaw.org/library/attachment.120355](http://www.healthlaw.org/library/attachment.120355), titled "FEDERAL LAWS AND POLICIES TO ENSURE ACCESS TO HEALTH CARE SERVICES FOR PEOPLE WITH LIMITED ENGLISH PROFICIENCY", those four factors are:

1. The number or proportion of LEP individuals served or encountered.
2. The frequency of contact with a program.
3. The nature and importance of the program to beneficiaries.
4. The resources available and cost considerations."



Item nine in the same document lists recommendations for providers as to when to have materials translated to ensure compliance with Title VI.

- **Translated signage, and informational posters should be displayed in major areas** of the medical facility, for instance, the admission area of every section, lobby and patient waiting rooms, triage examination area, medical examination rooms, and radiology and other testing areas. At the very least, those signs should indicate in several languages that patients have the right to an interpreter and to receive information in their own language. Please refer to item 4 in the References section for more information.

- Besides translating for compliance with federal law and national standards of practice, **all documents considered "vital" should be translated** (admission forms; consent and complaint forms; eligibility, procedural and safety guidelines; privacy forms; commonly given release instructions; and key patient educational materials, checking first to see if they can already be provided

by local or regional governments in the most commonly requested languages.) For a useful list of documents that should be translated, please consult item 5 in the References section.

To establish which documents are indeed vital, decision-makers can begin with a needs assessment:

- How frequently is translation of a particular document being requested and which departments are requesting it?
- How has this frequency been documented? If not documented, who should be surveyed to find out?
- Research existing literature to see which health subjects are already covered in publicly available translated versions.
- Consult geo-demographic data to anticipate the needs of your institution, for instance, the US Census and other regional sources. For examples of this type of data, please consult item 6 in the References section.

### How should the source document be prepared for translation?

As the first step in the document development process, this is the most important one. The quality of a source document greatly affects that of the final translation. If there are any confusing or poorly written passages, unless the linguist seeks clarification or rephrasing of the passage, the final target language passage will be equally confusing (“garbage in, garbage out”).

A source document should be not only carefully and factually written, but it should also be edited for content accuracy and language correctness. And when a source document is intended for translation as well, the following should be taken into account:

**- The document should be devoid of figurative language which most probably will lack an equivalent in many target languages** (this applies to idioms, adages, sports references and other source culture-dependent text). The document should be very clear, and free of ambiguity, particularly when it is an instructional document.

**- The document should be culture-neutral.** As the previous item implies, certain cultural elements can be problematic and would require adaptation,

which is something not all translators are equipped to do. Also, a neutral document has greater chances of quickly going through a legal approval process if this is a requirement, whereas a source document adapted for translation would need to undergo a separate legal approval process.

The rule of thumb is that translation managers should establish a process for verifying that a document is truly final when it reaches their desk for translation.

An exception to culturally neutral materials is content intended for specific audiences or purposes, such as social marketing or educational campaigns segregated by gender, age groups or other relevant criteria.

**- The document is written at an appropriate reading level (also known as linguistic register).** Some states have established guidelines as to the reading level of materials intended for patients. In general, materials intended for patients should be written between the 6<sup>th</sup> to 8<sup>th</sup>-grade reading levels. In turn, translators must adhere to the reading level of the original, or if absolutely necessary, adapt it for the target language (and again, not all translators are skilled writers capable of adapting linguistic registers.) For more information, please consult the Resources area of the IMIA web site (<http://www.imiaweb.org/resources/healthliteracy.asp>).

**- A process should be established to reutilize content, for quality assurance, consistency and savings over time.** Thanks to the advent of authoring tools for controlled language, content development, and translation memories that allow the use of recycled translated content, significant savings can be realized in time, efficiency and cost. It is highly recommended to create and manage documentation through a content management system in which authoring tools are used. For more information, please refer to item 7 in the References section.

In the absence of these systems or authoring tools, templates should be developed so that recurring text can be reutilized. This will allow translation vendors to work with translation memories, thereby providing savings for the institution. Please see APPENDIX B for a brief description of translation memory tools and other concepts.

**- When managing large translation projects, plan and execute terminology management**

**work and style guides.** To maintain consistency, especially in large translation projects where the work may be handled by multiple translators, it is recommended to commission the creation of a glossary ahead of the translation phase, so that all participants can use the same equivalents.

Likewise, guidelines as to what certain terms might mean in context (for example, unique institutional names, acronyms and mnemonics), how to handle certain terms which should not be translated, etc., should be provided in a style guide.

**- Create a version of forms that lends itself to dual-language printing.** Certain forms should, whenever possible, be formatted to allow side by side or line by line bilingual text. While not all documents will lend themselves to bilingual presentation, short ones such as certain notices and consent forms, as well as the acknowledgement and signature pages of longer documents certainly do. Make sure to properly label the forms with the target language. The form footer, where all document control conventions are normally found, is a good place to include language information. All personnel in charge of creating and managing documentation should be cognizant of the document control and naming rules.

When patients are to respond to, and sign a translated form, whether bilingual or in the target language, an interpreter should be at hand to interpret any questions that may arise, and so that medical personnel can understand any verbal and written answers the patient might have given. See APPENDIX C for a sample bilingual form with two possible formats.

**- Encourage translation vendors to report errors in the source text.** The quality assurance process should be a continuous effort, and all priority documents need to be revised at least once a year to verify if they are current and correct. It is not uncommon to still find errors in versions that have been deemed final and received legal approval if applicable. If errors are reported by a translator, correct them and update the document immediately so that translation can resume with a correct version.

**- Avoid complex formatting,** such as text boxes and frames, automatic numbering and data fields, captions within images, etc., whenever possible. Having to adjust this type of formatting to fit expanded or contracted target language text, or significantly different syntax, will increase your

desktop publishing costs and may also prevent vendors from using translation memory tools. Simplicity will represent more savings.

**- Have a proper documentation management process.** Implement document control standards. This is not a process which needs to be created from scratch. Refer to guidelines published by organizations like ISO and ASTM and do your best to adapt them to the needs of your institution. At the very least, implement version control and document any and all modifications to original materials. Some authoring tools have built-in capabilities for version control. See the footer in APPENDIX C for a standard version control format.

**- If contact information is included on a document, ensure that there will be support in the target languages if needed.** When printing patient assistance or information hotlines, establish first what kind of support LEPs who contact the institution will be provided in their own language. If no foreign language support will be provided, a disclaimer should be included next to the contact data (1-800 numbers, websites, staff names, etc.) indicating whether assistance is available or not in other languages. Also, consider whether certain resources should be listed or not for some target languages. For instance, if there is a bilingual line with assistance in English and Spanish, the number should not be printed in the other target languages. Consider creating slightly different source documents for various target audiences.

Steps like the one described above, in which the target audience and its culture are considered throughout the translation process, are part of what is known as the localization process, which essentially means making sure that a full linguistic, cultural and functional transfer is conducted.

### What is involved in the translation process?

The work of a competent medical translator evidences accuracy, precision, correctness, completeness, consistency, the knowledge of accepted linguistic norms applied to translation, and rigor of methodology ([Txabbarriaga, Rocío, 2005](#)). Likewise, the style and register of the original are normally preserved. There are, however, exceptions to the latter, where a document written in English is not always adequate for new health literacy guidelines and requires

lowering the reading level and cultural adaptation prior to translation.

Adapting text also requires a level of sophistication in the use of language that only a competent, professional translator can offer. The ultimate test for a medical translator is the validation by the end user; i.e., whether the person in need of translated materials can adequately comprehend the information provided and act according to expected results. For this validation to be successful, the following must happen:

- A final electronic source document is created. For more information, please see the free guides available at <http://www.multilingual.com/guides.php>.
- A translator analyzes the content of the source document by quickly skimming and scanning through it, and decides whether he or she is qualified to transfer meaning accurately to the target language.
- Translator starts transferring, converting and adapting meaning as necessary. The best translation is not a word for word rendition of the original, but rather a meaning for meaning transfer in which the end result is not just an accurate translation, but naturally sounding target language. In the final translated document, syntax, grammar, spelling and terminology are correct, and cultural elements have been taken into account

Ideally, the next step in the process is a review (editing) of the translated document by a second professional whose qualifications surpass those of the original translator. The Reviewer or Editor checks for the elements described in the previous paragraph, as well as punctuation and capitalization rules, and the general integrity of the document, including formatting.

Next, final proofing or at least a visual inspection should be conducted. The proofing stage serves as the step in which completeness and general formatting are checked, and should ideally be performed by a third person, not the editor or the original translator.

Please note that both editing and proofing are conducted by carefully comparing the source and the target documents. Please see APPENDIX D for a standard translation production cycle.

Documents should be properly formatted, labeled and versioned, something that even a person unfamiliar with the target language can check. Many times translations have been mislabeled with

the wrong target language, or documents have been translated more than once unnecessarily because document controls were not in place.

Documents can then be validated (“field-tested”) to ensure the information is clearly understood by the target audience and accomplishes the same purpose of the original (source) document.

### How should the medical translation process be managed?

The steps mentioned in the previous item are usually conducted by a language services provider, a translation agency or individual freelance translators managed by a member of the institution’s staff. A medical institution can have a variety of scenarios, most of which vary depending on the size of the institution and the size of its budget (whether or not receiving federal or state funds). The following is an ideal situation, in which emphasis is placed in internal management procedures. Your reality may be very different than this ideal scenario, and while anticipating every possible situation is beyond the scope of this guide, adaptations can certainly be made based on some fundamentals (and alternatives are offered):

**1. Have a central source document repository.** Just like source document control, translations must be controlled and updated as needed (as the source document is updated, or as new information, procedures, guidelines or legislation make current content obsolete). There is a need to create a repository of readily available public domain documents, such as consent forms, as well as a private area for patient health information protected by privacy laws but which may require translation. Everyone involved in the use of such repositories should be accountable for maintaining documents and keeping them up to date. For instance, if a recommendation is made to modify the description of a particular procedure for which patient consent is needed, and indeed a modification is made to the source document, the person originating such change will need to document it, run it through the entire regulatory process for source documents and, once the change is approved, generate a translation update request.

The translation repository can be a designated drive in a network, a document server accessible through an Intranet, or even a folder in the PC’s hard drive of the person in charge of managing translations, which leads to the second point:

**2. Establish a central translation management point.** A person should be designated to manage and coordinate translation tasks. This person may very well have this duty as a full time position, or in addition to other duties such as managing interpreter services. This person would be in charge of assessing the translation needs of different departments, ensuring that a process for requesting translations is followed, establishing a process for handling urgent translation needs (such as sight translation conducted and documented by an interpreter), as well as the tasks described in the next few steps.

The translation manager's role can vary depending on many factors. In a given institution, it may be more practical to have this person interact with internal departments and manage a few translation vendors, mainly agencies. In other cases the institution may assign a combination of translation coordination and project management duties to this person, in which case he or she will most likely be working with small and at times large teams of individual translators and proofreaders instead of agencies.

**3. Prioritize translation needs.** Establish which documents are more frequently requested and which languages to translate into for your institution and your area. A preemptive approach when it comes to language needs can certainly be beneficial, and to carry it out, internal feedback as well as demographic data should be readily available. Medical personnel and interpreters can provide information as to which documents are most commonly requested. This needs assessment is paramount to effective planning and budget management.

**4. Recruit, qualify, choose and manage vendors.** Know where to find and how to qualify translation vendors. Deciding whether to work with individual translators or agencies is also critical. If the former is decided, it means the translation manager will be interacting directly with individual translators and managing translation projects from beginning to end (which in turn means that this person has knowledge of translation project management, metrics, and quality assurance). While this approach entails greater control over the entire translation process, it may not represent significant savings for an institution if there are multiple projects in multiple languages, and the work load of the translation manager is more than a full time job.

When working with individual translators, professional directories are the easiest tools to find them. Examples of these are the membership directory of the American Translators Association ([www.atanet.org](http://www.atanet.org)), Proz ([www.proz.com](http://www.proz.com)), and the Translator's Cafe ([www.translatorscafe.com](http://www.translatorscafe.com)). The International Medical Interpreters Association (IMIA) International Medical Interpreter Registry lists interpreters who also translate documents ([www.imiaweb.org](http://www.imiaweb.org)). Regional associations often have membership directories on their web sites as well. Use the words "translators directory," "directory of translators" or similar in quotation marks when conducting an Internet search to obtain targeted results. Whenever possible, hire an ATA-certified translator (please note that certification is available for just a few language combinations). If working with individual translators, unless the institution has an internal document design and production department, desktop publishing (DTP) vendors will also need to be recruited. There are very few translators who also offer desktop publishing services. Please also note that some individuals may work with a partner who edits their work. Credentials for that individual will also need to be validated.

If agencies are hired to handle translation projects, medium and large size agencies will be able to handle higher volumes, more languages, and desktop publishing as well as other services, but the initial qualification process will be a bit more involved. See APPENDIX E for a sample *Request for Information* form. For an example of a freelance translator application form, see item 8 in the References section.

The role of the translation manager will probably be more focused on overseeing the work of agency vendors and controlling budgets. Please note that the rates for agencies will be much higher than those of individual translators, as the norm is for them to do all vendor/project management themselves.

If working with agencies, you may also use the directories mentioned above, as well as those that may be obtained from associations like the Localization Industry Standards Association (<http://www.lisa.org>) and the Globalization and Localization Association (<http://www.gala-global.org>). While a traditional yellow pages search is not discouraged, it will be hard to find any meaningful information about a particular agency this way. There are also sites in which translation agencies are rated for their compliance with

payment obligations with freelance translators like Payment Practices and the Proz's Blue Board, which may be a good indication of the credit-worthiness of a company (for more information, please see item 9 in the References section). See APPENDIX E for a form in which vendors are asked to disclose general company and procedural information.

It is highly recommended that vendors, whether individuals or agencies, always be treated in a professional way. They are, after all, *partners* of the institution in the effort to produce good quality translated documents and comply with the law. Therefore, they should not be seen simply as the party on the other end of a transaction. Creating a true partnership with vendors that goes beyond mere transactions is the best way to accomplish the goals of the institution and build successful business relationships.

Once linguistic vendors are selected based on qualifications and rates, a list of preferred vendors based on qualifications (e.g., certified vs. non-certified, MA in translation vs. experience), rates, and other criteria pertaining to the needs of the organization should be created and maintained.

A word of caution about low rates: Low rates *can* be equated with poorly done translation work. Know market rates and negotiate based on volume and other considerations. Do not compromise on qualifications.

**Regarding independent desktop publishing and printing vendors:** Please keep in mind that for cultural appropriateness, the graphic elements of the original document may need to be adapted for a particular language. Have a translator verify the final, laid out English document, and point out any graphic elements, including colors, which may not carry any meaning or are inappropriate for a particular culture. You will then have to look for the right imagery to substitute in a given target language.

The person or persons in charge of desktop publishing in foreign languages must be familiar with the rules of the target language, particularly punctuation, capitalization and hyphenation. These, and text truncation, are the areas in which most mistakes are made when formatting translated documents. Also, keep in mind that a lot of languages expand while others contract, and the best policy is not to expect for translated documents to fit exactly the same amount of pages

of the original. Naturally, text can be manipulated so that the target language does fit in the same amount of pages as the original, but the compromise will need to be made elsewhere, such as in font sizes, character, line or paragraph spacing, etc. For more information on contraction and expansion ratios in translation, please see item 10 in the References section.

DTP vendors should be able to deliver formatted documents in the target languages which, except for cultural adaptations, are a mirror of the original document. They should include in their deliveries not just native files in the target language (Word, InDesign, Illustrator, FrameMaker, PageMaker, QuarkXpress etc), but also pre-printing proofs of the target language documents on PDF format (for viewing with the Adobe Reader, a free download from [Adobe](#), and which will allow anyone to see documents in other languages, whether they have fonts in those languages or not. Documents may also be viewed in their native applications when available (provided you have the right foreign language fonts to display them correctly and not alter them in any way) or as graphics. The latter is not recommended, as graphic files can be extremely large and resource consuming. PDF is the preferred format for viewing delivered target documents.

The best way to ensure documents will print correctly is to have the PDFs of the printable version inspected by the original translator before sending the native files to the printer, and to ensure the printer has the fonts as well. Agencies should offer the visual inspection service by the original translator or editor as part of their project price, and this criterion should be taken into account when selecting vendors.

**Legal considerations:** Translation vendors, whether individuals or agencies, must work under contract. This is for the institution and the vendor's protection. You may refer to your legal department for drafting this contract, but a person knowledgeable in translation standards and procedures should actively participate in the development of this contract to decide what should be included. For more information, please see item 2 in the References section.

Agency vendors should carry insurance, and provide proof of it before a contract is to be drafted. Their policy should cover not only mistakes, but also HIPPA violations.

**5. Know how to request a quote and know the current market rates for translation, DTP and printing work.** Working with a set budget is not enough, but making the most of your budget while controlling quality is possible with the right information.

Start by understanding market rates. These vary by language combination. They also vary by country, but for purposes of this guide, we shall reference only rate information for the United States. This information, while subject to change, has been researched and compiled by several organizations. The ATA, for instance, publishes a [Translation and Interpreting Compensation Survey](#) as a guideline for what individual translators charge. When developing your translation budget, remember to factor in the costs of having to manage individual vendors as well as projects from beginning to end if you choose to work with individuals.

In general, institutions can expect to pay anywhere between US\$0.10 and 0.30 per word to individual translators based in the US (source or target count, a rate that varies by language and by individual); between \$0.03 and 0.12 for editing, and between \$0.02 and 0.10 for proofing. Many translators also charge for editing and proofing by the hour, but the general guideline is the equivalence of 1,000 (editing) or 2,000 (proofing) target words per hour (i.e., between \$30 and \$120 per hour) (See also <http://www.translatorscafe.com/cafe/CommunityRates.asp>).

Agencies usually charge a much higher, single per word price, which will include a markup for profit, but they should, and can be expected to, manage translation projects and processes for you, delivering a finished product. Charges for desktop publishing and other services, such as terminology management, are usually separate, and charged by the hour or project. Ask for a fully itemized quote prior to giving out any translation project.

Desktop publishing charges vary widely, and depend on many factors, the main one being the complexity of the original. The more complex the formatting, the higher the desktop publishing charges will be for reformatting documents in the target language. If for some reason the source document is not available in the native electronic file but rather on paper or only on PDF, the formatting will need to be recreated from scratch and you will be charged for that service.

Agencies should be able to provide you with a per word rate, charge by source count, and include all linguistic services in that per word rate, as well as project management. It is not unusual, however, for some agencies to itemize the project management cost. Please see APPENDIX E for a sample *Request for Information* (RFI) form.

If requesting a quote from a printer, make sure to inform them of any timelines you are expected to adhere to, as well as budgetary constraints: Does your budget allow for translated materials to be printed in the same quality as the English original? (e.g., glossy and special paper or plain quality). Make sure to obtain quotes from several printers (you may also wish to include an overseas printer in the request for proposals if handling large volumes of say, Chinese language documents). Provide all potential printing vendors with the exact same information for the quote, so that a proper price comparison can be made.

Should the quotes you receive from the printers be higher than what you budgeted for, modify your requirements based on known price modifiers such as paper quality, the amount of graphic elements included, the colors used, left to right vs. right to left binding, etc.

To obtain the most accurate quote, always provide original, native files to the vendor (that is, if the document was created in InDesign, provide InDesign files, not PDFs). Ask for a breakdown of pricing using translation memory tools.

**6. Negotiating realistic deadlines:** Accepted market standards for translation output in the US are 2,000 to 2,500 source words translated per translator per business day, 8,000 target words edited per editor per business day, 16,000 target words final-proofed per proofreader per business day. If a project is of really high volume, say, 30,000 words, and needs to be translated in one week, multiple translators would be needed and there would not be enough time for any manner of quality assurance. Having different people work on a single piece will inevitably result in inconsistent style, terminology and overall quality. Consider very carefully what truly constitutes an emergency, understand the risks of commissioning a rush translation, and expect to pay top price.

**7. Know which resources should also be created and maintained to aid the translation and quality control processes.** Resources such as style guides and glossaries can be very helpful

in ensuring consistent quality and terminology in translated documents. Both resources require maintenance, as they have to be constantly evaluated and augmented.

Another important resource is a translation memory. There should be a translation memory per language combination and, if applicable, per locale (such as simplified and traditional Chinese). Even if you do not plan to acquire a translation memory tool, there is an open standard (TMX, Translation Memory Exchange) for these valuable resources that allows you to keep them in xml format. Demand these from your vendors, individuals and agencies alike.

**Additional information:** Provide feedback to your vendors on a regular basis, positive and negative. This will give the vendor an opportunity to continue using the procedures and processes that work, and improve or change those that do not. To see a detailed set of [procedural guidelines](#), visit the resources page for the Executive Office of Health and Human Services at the Massachusetts Department of Public Health Department (see also item 5 in the [References](#) section).

A process can also be created to document and control the practice of assigning written or sight translation tasks to interpreters. For instance, interpreters who perform either service should be required to complete and sign a form indicating which document they translated or summarized (please note that the practice of summarizing content, whether verbal or written, is strongly discouraged, but it does occur in emergency situations) specifying whether the end result was a written document that mirrors the original, a summary of information in the target language, or a complete verbal rendering of the data. The date, time, language direction and dialect, if applicable, should also be included. Please see APPENDIX A for a sample form. Documenting the tasks will give administrators an opportunity to have oversight and formalize processes.

**We have translated our main forms. What do we do with the information provided by patients in a foreign language?**

You will most likely need to translate the answers provided by a patient in foreign language forms. In these cases, written or sight translation performed by an interpreter may be an acceptable way to obtain the information. As suggested earlier in this guide, this process should be monitored and documented. Procedures for documenting and archiving information given in English may already be in place at your institution. Make sure to inform interpreters and translators of these policies and apply them consistently.

If medical history documentation in a foreign language is provided by a patient, the institution is under no legal obligation to translate such documents into English. However, a translation vendor may be willing to provide a discount based on volume so that such documents can be adequately processed too.

### **How can we manage translation of our web site content?**

Just like you do with documentation, translating the content of your web site will require a needs assessment (to see if partial or full content translation is needed, whether graphics need to be translated and perhaps recreated in the target language, etc). It is also important to provide a potential web translation vendor with your website's native files to obtain an accurate quotation. These may be obtained from the people who created the web site in English.

Other factors to keep in mind for web site translation are whether a site is ready to be converted into other languages (internationalization), how updates to content will be reflected on translated versions (multilingual content management), whether on-line forms will be translated, who will receive submissions and queries in foreign languages, and how will those submissions and queries be managed. For more information, please visit the LISA website frequently asked questions section (<http://www.lisa.org/Answer-Archives.625.0.html>).

## REFERENCES

1. Txabbarriaga, Rocío. 2005. "About Translation Standards." The Journal for Distinguished Language Studies, Volume 3, <http://www.distinguishedlanguagecenters.org/publications.htm>.
2. Standards: ASTM Designation: F 2575 – 06 Standard Guide for Quality Assurance in Translation; ISO 9001:2005, Quality Management System Standards; ISO 14971:2007 Medical Devices -- Application of Risk Management to Medical Devices; ISO 1087-1, Terminology – Vocabulary - Part 1: Theory and Application; ISO 1087-2, Terminology – Vocabulary - Part 2: Computer Applications; DIN Standard 2345, Translation Contracts. See also <http://www.notisnet.org/links/tilinks.html> for other resources.
3. About heritage speakers:  
<http://www.news.harvard.edu/gazette/2008/05.29/03-heritage.html>  
<http://www.nationmaster.com/encyclopedia/Heritage-speaker>
4. U.S. Federal Guidelines: [www.lep.gov](http://www.lep.gov). CLAS Standards: [www.omhrc.gov](http://www.omhrc.gov). OMH – FLNE Report: <http://www.mass.gov/dph/omh/omh.htm>.
5. Massachusetts Department of Public Health Translation Guidelines: [http://www.mass.gov/Eeohhs2/docs/dph/health\\_equity/translation\\_guidelines.pdf](http://www.mass.gov/Eeohhs2/docs/dph/health_equity/translation_guidelines.pdf)
6. a) [US Census](#); b) [MA demographic data](#)
7. Examples of authoring tools and content management systems:  
<http://www.author-it.com/index.php?page=modpub>  
[http://en.wikipedia.org/wiki/List\\_of\\_content\\_management\\_systems](http://en.wikipedia.org/wiki/List_of_content_management_systems)
8. Example of a very complete yet concise form used by a well-known provider of translation services: [http://www.transperfect.com/LinguistApplication/linguist\\_app.html](http://www.transperfect.com/LinguistApplication/linguist_app.html).
9. Payment Practices: <http://www.paymentpractices.net/>  
Blue Board: <http://www.proz.com/translation-articles/articles/96/>
10. Translation expansion and contraction ratio: <http://www.universaldialog.com/html/expand.html>
11. Kelly, N., Txabbarriaga, R. and Graves, D. (March 2007) Culturally CAPABLE Translation. ATA Chronicle (Journal of the American Translators Association).
12. Several Articles and useful descriptions of medical translation procedures:  
[http://www.translationdirectory.com/medical\\_translation.htm](http://www.translationdirectory.com/medical_translation.htm)  
[http://www.cistranslations.com/Quality\\_Factors\\_Medical\\_Translation.asp](http://www.cistranslations.com/Quality_Factors_Medical_Translation.asp)  
<http://www.ricintl.com/quality-medical-translation.html>  
<http://www.mcelroytranslation.com/aboutus/articles/differentcoloredhorse/>
13. Translation studies:  
Massardier-Kenney, Françoise; Fisbach, Henry et al. 1998. Translation and Medicine, American Translators Association Scholarly Monograph Series. John Benjamins Publishing Company.
14. Articles about medical translation available for purchase:  
Mitka, Mike. 2007. For Non-English Speakers, Drug Label Instructions Can Be Lost in Translation. JAMA, June 20, 2007; 297: 2575 - 2577. AND 2001, Tearing Down the Tower of Babel: Medical Translation in Today's World. JAMA, Feb 2001; 285: 722 - 723
15. Bibliographical compilation for French medical translators:  
<http://www.groupetraduction.ca/documents/ToolBox.pdf>.



## APPENDIX B

### Computer-Assisted Translation (CAT), Translation Memory Tools and Other Useful Concepts

**Source:** The language in which the original materials were created.

**Target:** The language into which the materials are to be translated.

**Locale:** The set of geographic, cultural and linguistic elements pertaining to the audience for whom the translated materials are intended.

**Localization:** Translation and adaptation of materials for a specific locale.

**Computer-Assisted Translation (CAT)** is not machine-translation (MT). CAT refers to the use of data processing tools aimed at assisting the human translator with productivity and consistency. The most popular CAT resources are probably translation memory tools.

A **translation memory** is a database of translations created by a human translator as the translation is performed, or as a result of aligning a source document and an existing translation.

With a **translation memory tool**, it is possible to perform:

- Document analysis: Parsing of documents to determine number of words, partial text matches (called fuzzy matches), and repetitions.
- Memory creation: The creation of translation units (TUs), which consist of a source segment, and one or more target segments.
- Memory maintenance: A translation memory can be augmented over time, distributed to different translators, edited and purged.
- Importing and exporting memories in universally accepted formats: Translation memories can be imported and exported between different translation memory tools thanks to an open standard called TMX (Translation Memory Exchange).
- Concordance search: To preserve consistency, a search can be conducted to see how a term was previously translated. This function, along with terminology management, helps ensure consistency across multiple translation vendors.
- Interaction with external applications: A translation memory tool may be paired with text editors like Microsoft Word, terminology applications, presentation applications, spread sheets, etc. Other document formats are also handled through the use of intermediary applications or pluggins.

A **terminology extracting tool** is a program that can pull out terms from a document or a set of documents based on certain criteria. Every program is different, with some offering purely statistical extraction (terms are extracted based on the frequency in which they occur), or morphological and statistical (phrases and terms are extracted based on user-set criteria).

The **Terminology management** process may include term extraction in the source language, source term definition, source text context and reference, term translation, and target text validation.

**Machine translation** or automatic translation is a process based on natural language parsing in which semantic and syntactic units of a source language are paired with similar structures in the target language to provide an equivalent. It is useful to obtain the main idea of a passage in foreign language and gain general understanding and information. It should not be used as a means to translate a document meant for distribution and/or publication.

## APPENDIX C

### SAMPLE BILINGUAL FORMAT: ENGLISH AND SPANISH

(Source taken from a state government form - Proprietary names have been omitted)

#### I. Line by line sample

**CITY OF ANYTOWN / CIUDAD DE ANYTOWN**  
**DEPARTMENT OF HUMAN SERVICES / DEPARTAMENTO DE SERVICIOS HUMANOS**  
**CONSENT TO TEST FOR ANTIBODIES TO THE HUMAN IMMUNODEFICIENCY VIRUS (HIV) /**  
**CONSENTIMIENTO PARA SOMETERSE A UNA PRUEBA DE DETECCIÓN DE ANTICUERPOS**  
**CONTRA EL VIRUS DE INMUNODEFICIENCIA HUMANA (VIH)**

#### INFORMATION / INFORMACIÓN

The oral specimen collection device is an easy way to be tested for HIV infection. The device requires no blood or needles. Like a blood test, the device checks for HIV antibodies, not the virus.

*El dispositivo para recolección de muestras por vía oral es una forma fácil de hacerse la prueba de detección de la infección por VIH. Con este dispositivo no se requieren muestras de sangre ni se utilizan agujas. El dispositivo comprueba la presencia de anticuerpos contra el VIH, no del virus mismo, al igual que se hace con un examen de sangre.*

The antibody test will take a swab from your mouth. The result from the device is available in 20 minutes. A positive result will require a blood specimen collection to confirm finding. This test is administered at your local health department or with your private physician.

*Para la prueba de detección de anticuerpos con el dispositivo, se inserta un hisopo en su boca. El resultado de la prueba con el dispositivo se obtiene en 20 minutos. Si se obtiene un resultado positivo, será necesario tomar una muestra de sangre para confirmarlo. La prueba de sangre puede hacerse en su departamento de salud local o en el consultorio de su médico personal.*

---

#### II. Opposing columns sample

Early detection and your health care are important. If test results are positive, the best available treatment may be offered as early in the stages of the disease as possible. You will be informed of the confirmed test results and receive counseling and/or education concerning HIV. The results of the test will **not** be disclosed to anyone except persons authorized by law to receive such information. Such persons to whom the results may be released include health care providers involved in your care or treatment, the Department of Health, your parent(s) if you are a minor, or your spouse.

*La detección temprana y su atención médica son importantes. Si el resultado de la prueba es positivo, se le puede ofrecer el mejor tratamiento disponible tan temprano en las etapas de la enfermedad como sea posible. Se le informará sobre los resultados confirmados de la prueba y recibirá consejería o educación relacionada con el VIH. Los resultados de la prueba **no** se divulgarán a ninguna persona excepto a aquellas que tengan autorización bajo la ley para recibir tal información. Entre las personas a quienes pueden divulgarse los resultados se incluyen proveedores de atención médica que participan en su cuidado o tratamiento, el Departamento de Salud, sus padres si usted es menor de edad, o su cónyuge.*

#### CONSENT

I have received information about HIV testing and AIDS. I understand the results will remain confidential and will be provided to health care professionals and others only as necessary.

\_\_\_\_\_ I consent to the performance of the HIV antibody testing

\_\_\_\_\_ I am under 18 years old and understand the results of this test may be released to my parent(s)/legal guardian as stated under the HIPAA & state law

#### CONSENTIMIENTO

*He recibido información sobre las pruebas del VIH y el SIDA. Entiendo que los resultados se mantendrán de forma confidencial y se divulgarán a los profesionales de atención médica y otras personas sólo si es necesario.*

\_\_\_\_\_ Acepto someterme a la prueba de detección de anticuerpos contra el VIH.

\_\_\_\_\_ Soy menor de 18 años de edad y entiendo que los resultados de esta prueba pueden divulgarse a mis padres o a mí ...

## APPENDIX D

### STANDARD DOCUMENT TRANSLATION PRODUCTION CYCLE

#### 1: Source Document Selection

Selection and delivery of final, original format source files and reference documents, as well as graphics files, and linked or embedded documents.

#### 2: Source Analysis

Review of materials to establish word counts, additional tasks, deadlines, costs and expectations.

#### 3: Quotation/Scheduling

An itemized cost and schedule quotation is issued. The work should not start until all approvals of pricing and process are received.

#### 4: Project Setup

A team is chosen and tasks are assigned. The team typically includes a project manager, a translator, an editor, desktop publishers, and a proofreader or QA specialist.

#### 5: Translation, Editing, Proofreading (or QA)

A professional linguist transfers the source content to an initial version of the target language. A second linguist designated as the editor verifies the translation against the source language, as well as previous translations, glossaries, and style guides (as applicable). The editor checks for semantic, grammar, syntactic, punctuation, capitalization, spacing, orthographic accuracy, additions, omissions, redundancies, cultural nuances, reading level, and general style correctness. A third linguist verifies that the translation (possibly a desktop-published document) is complete, free of formatting errors, that it reads well, and checks for punctuation, spacing, hyphenation, and capitalization. Graphics are also verified. A final visual inspection of the entire document is also conducted.

#### 6: Desktop Publishing (DTP)

Desktop publishing experts create formatted versions of the target language documents.

#### 7: Review of formatted documents

Final materials are proofread one more time to ensure that no formatting errors have been introduced during the desktop publishing process.

#### 8: Final Formatting

Once DTP issues are marked and corrected, the DTP team finalizes the document and prints a PDF as applicable.

#### 9: Final Delivery and project closing

A project manager delivers the final translated version of the document in the manner agreed during project setup.

#### Additional steps:

##### Target Audience Validation and/or Client Review

The translation is reviewed before or after it is typeset by an external party, often an end user or a client representative with fluency in the target language and knowledge of the subject matter. Guidelines should be provided to reviewers.

##### Review Validation

Reviewed documents are sent back to the original translator or editor for incorporation of changes. If the translator or editor does not agree with the changes, the client reviewer is notified.

## APPENDIX E

### RFI (Request for Information) Form

Please respond to the questions below in the right column. You may include any attachments to support your responses upon returning this form.

**Agency Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Agency Contact:** \_\_\_\_\_

(Please provide the name of the person who should be contacted if an answer needs clarification or further information is required). \_\_\_\_\_

**Contact person phone number and extension:** \_\_\_\_\_

QUESTIONS	ANSWERS
How long has your agency been in business?	
Name other clients in the medical services area. Can they be contacted as references?	
Is your agency a member of the American Translators Association and/or other professional associations? If so, how do you implement the code of ethics and standards of practice?	
Has the company ever been sued? If so, what was the reason?	
Are there any litigations pending?	
Does your company carry business/liability insurance?	
Has the company ever filed for bankruptcy protection?	
Which services does your agency offer (linguistic [translation, editing and proofing only], desktop publishing [DTP]), web and software localization, language proficiency assessments, cross-cultural communications consulting, other services)	
How many languages can your agency handle on a regular basis?	
Which subject matters other than medical translation can your agency handle?	
Describe your quoting process.	
How do you choose your	

translators? Do you have in-house translators or do you work mostly with freelance translators? Describe briefly your contractual agreement with freelance translators (including standards of practice and confidentiality)	
Describe your translation and quality assurance processes.	
Are all steps mentioned in your translation quality assurance process included in a single per word rate? Do you have a rate sheet with a per word price per language?	
Does your agency have a process for managing linguistic queries?	
Does your agency use Computer Assisted Translation (CAT) tools like Trados and SDLX? If so, please provide your sliding scale rate sheet for documents translated using translation memories. If not, do you plan on acquiring CAT tools? When?	
Can you certify the accuracy of your translations? If so, please provide the certification form you use as an attachment, and explain who is customarily responsible for signing the form and have it notarized.	
How do you customarily receive and send documents? Do you have an FTP site, Wiki or other file transfer tools?	
How do you assure data integrity? How often do you backup your data? How long is data kept on your servers?	
How do you handle complaints and disputes?	
What is your volume discount?	
What constitutes a rush job for your agency?	
Describe your payment terms: Do you require a percentage of the quoted price to be paid in advanced?	

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## **ABOUT THE GUIDE**

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## **ABOUT THE INTERNATIONAL MEDICAL INTERPRETERS ASSOCIATION**

The International Medical Interpreters Association is committed to the advancement of professional medical interpreters as the best practice to equitable language access to health care for linguistically diverse patients. Founded in 1986, with over 1,600 members, most providing interpreting services in over 70 languages, the IMIA is the oldest and largest medical interpreter association in the country. While representing medical interpreters as the experts in medical interpreting, membership to the IMIA is open to those interested in medical interpreting and language access. We currently have a division of providers, corporate members, and trainers. Policy makers, health care administrators, and others interested in medical interpreting are also welcome to join us as associate members. For more information about the organization, please go to [www.imiaweb.org](http://www.imiaweb.org).

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