



MEDICAL, SCIENTIFIC, AND TECHNICAL TRANSLATION:

EIGHT BEST PRACTICES FOR GLOBAL GROWTH AND COMPLIANCE

A Language Scientific Report
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MEDICAL-GRADE ACCURACY IS MANDATORY FOR YOUR TRANSLATIONS

The question: How to get there?

Especially if you have complex needs, or if you're new to the multilingual landscape. At Language Scientific, we've identified **eight best practices** that help medical, technical, and scientific clients make informed decisions about translating high-stakes content.

1: TREAT TRANSLATION AS A STRATEGY, NOT A LAST STEP

“Let’s finalize everything in English, then we’ll think about the translation!”

Particularly if you’re new to global expansion, it’s tempting to think this way. Yet, we find that the most successful translation projects take language and culture into account from the get-go.

Whether you use an in-house translation team or an external translation provider, it’s never too early to take advantage of their expertise. Tell them what you’re planning and ask for their insights on the idea and your objectives, as soon as you start creating your documents in English.



2: IDENTIFY HIGH-RISK CONTENT AND GIVE IT SPECIAL TREATMENT

Good translations are part of an overall risk management and regulatory compliance strategy

A translation error in a patient intake questionnaire can have serious trickle-down effects: patients misunderstand the acceptance criteria for a study or clinical trial, the wrong people are accepted, and the project has to be paused. It's equally risky to say that "everything is a high priority," because you may not have the time or budget to put every document through the most rigorous translation workflow.

Categorize your documents:

- Internal/informational use only
- Customer or patient-facing
- For publication/distribution
- Likely to be included in a regulatory submission or patent filing



3: USE SUBJECT-MATTER EXPERTS, NOT GENERALIST TRANSLATORS

Isn't it enough to hire translators who speak another language?

That's a start, but it's not enough. Medical, technical, and scientific content requires translators with real subject-matter expertise, up to and including an M.D., PhD, PharmD, and/or work experience in biomedical research or a relevant technical field

Highly specialized translators are “trilingual”:

- English
- At least one other language
- The specialized language of the texts they translate



4: BUILD IN MULTI-STEP QUALITY ASSURANCE AND REVIEW

Publication-ready documents, even when written in English, need to be proofread

But medical, scientific, and technical translations require a structured QA model with cross-checks, multiple reviewers, and a documented quality management process. You can't just run these documents through a spell-checker and call them done!

Linguistic validation involves:

- Reconciliation (combining multiple translations into one version)
- Back-translation (translating the translation back into the original language to check for errors)
- Clinical review (subject-matter experts evaluate the translation)
- Cognitive debriefing (making sure your target audience understands the translation in the way that you intended)



5: UNDERSTAND SPECIFIC REQUIREMENTS BEFORE YOU START

Where are you submitting your translations?

The U.S. Food and Drug Administration, the European Medicines Agency, and other regulatory entities have specific requirements for translated materials. Last-minute scrambles are never fun—or easy, or inexpensive. Even less so when you're dealing with Country of Origin Labeling (COOL) or document signature audit trails that may be difficult to re-create after the fact. Doing a full review of these requirements at the start of your project can save a lot of time and hassle down the road.

Ask: What will our translations ultimately be used for? What authorities will be reviewing them?



6: BEYOND TRANSLATION: THINK LOCALIZATION, USABILITY, AND CULTURAL FIT

At first, translation can seem like a simple word replacement equation. English word=word in other language, right?

Usually not! **Lots of other factors come into the mix.**

When you're localizing software or a web interface, you have to think about the physical size of the words. Will these other languages fit in the allotted space? Have you included time for multilingual usability testing in your project timeline? Have you thought about cultural sensitivity issues?



7: USE AI RESPONSIBLY, WITH HUMAN OVERSIGHT THAT MATCHES THE RISK LEVEL

AI is a powerful tool. But raw AI output should never be used for anything mission-critical

Most medical, technical, and scientific translation clients are on tight timelines and have to work with huge volumes of content and documentation. AI can facilitate this.

Once you've categorized your documents as suggested in step 2, you know where to allocate your resources. Subject-matter experts must be at the controls, and hands-off automation is never appropriate for any documents that are going to be published or distributed.



8: CHOOSE BASED ON EXPERIENCE, SCALABILITY, AND COMPLIANCE SUPPORT, NOT JUST PRICE

There are lots of ways to source a good translation

For some clients, a robust in-house team is the right choice. Others don't want to be restricted to the languages, specializations, and regulatory submission experience of just a few people. Language services companies (LSCs) can quickly scale up. If you need a language team starting tomorrow, a good LSC can probably deliver. But you'll give up a certain level of oversight and control when you outsource the task.

When you're evaluating your options, you'll want to look at factors like deadline management, flexibility, quality assurance systems, pricing transparency, and the interplay between automated systems and humans.





TO SUM UP

When you're working across borders, clear and accurate multilingual communication moves from "item on the administrative checklist" to "core business function." Your stakes are high. An effective translation strategy combines subject-matter expertise, multi-step quality assurance, and workflows that support both your business goals and your regulatory requirements.

Language is complex. Choosing the right translation partner doesn't have to be.

Contact us at languagescientific.com for an expert assessment of your needs and how we can help.