

Translation of Telegraphic Grammar in Guidelines of Medical Products

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Research Article

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Abstract:

Purpose: This study is an attempt to evaluate the application of telegraphic grammar in the context English-Arabic medical translation, and focuses on accuracy, cultural adaptation, and patient safety.

Methodology: It adopts a qualitative analysis for six medical product leaflets. It was conducted through comparing student translations (N=30) against professional versions of translation which use a rubric assessing terminological precision, telegraphic appropriateness, and readability.

Findings: The study finds that 47% of errors stemmed from omitting the functional words in telegraphic structures, while adapted translations enhanced the patient's comprehension by 32%. Accordingly, a hybrid approach of literal and functional translation proved effective.

Research implications: The current study proposes to use standardized telegraphic guidelines for medical Arabic and inserting clinical jargon with cultural competence when teaching English.

Keywords: Translation; Telegraphic Grammar; Medical Products; Translation Strategies; Mechanism of translation.

1.1 The Problem

Inaccurate translation in medical contexts can have serious consequences, including negative health consequences, legal disputes, and economic repercussions. Misunderstanding resulting from inadequate or faulty translations—especially those concerning labeling of medical products—can compromise patient safety, lead to improper use, and even result in life-or-death situations. A common yet serious problem exists when patients are unable to follow dosage or use instructions because documents are not clearly written or are culturally and linguistically inappropriate translations. This problem is most evident in English-Arabic medical translations, where analytical and terminological contrasts between the two languages create major challenges. The current investigation addresses this serious problem by focusing on how medical product literature is translated in English-Arabic contexts, with a focus on sources of vagueness and methodologies intended to improve clarity and accuracy.

1.2 The Aims

- The central focus of this research is to explore and evaluate the translation methods applied in translating medical product information from English to Arabic. The purposes of this research include
- List the major translation methods used in documentation related to medical products.
- Assess each approach's effectiveness with a preference for methods that enable translation generation with clarity, relevance in terms of culture, and medical accuracy.
- This project seeks to develop the growing literature on medical translation, particularly in relation to the Arab world, while suggesting best practices for practitioners and organizations operating in this critical area.

1.3 Methodology

As with its aims, this study uses a qualitative analytical strategy, choosing a selection of six medical products for in-depth analysis. The instructions and packages related to each one are then translated and analyzed to develop a clearer understanding of strategies adopted and identify common linguistic and pragmatic challenges. It addresses its aims through using thirty third-year translation students henceforth (N=30) who have studied a coursework in medical translation. In addition, this study covers a theoretical analysis of medical translation and its associated challenges,

drawing from general translation models and scholarship. The quality assurance protocols and discussions are also reported, emphasizing the importance of expert review, use of standardized language, and employment of bilingual experts to provide accuracy while preventing misinterpretation. Such methods would be assessed to provide useful knowledge for maintaining and improving quality translation within medical contexts.

1.4 Limits

The central focus of this investigation is specifically limited to a particular set of medical items—six in number—which are paradigmatic examples of commonly used drugs or healthcare commodities. This focused approach makes it possible to analyze in depth while retaining relevance to typical, real-world settings. The inquiry avoids drawing conclusions applicable to any case of medical translation at large and rather aims to provide focused insights potentially applicable to future studies or educational endeavors within the field.

1.5 Significance

This study highlights the paramount importance for skilled and well-trained medical interpreters and translators who can masterfully navigate the subtle nuances of linguistic and ethical aspects of health communication. In particular, it clarifies the interpreters' role as mediators beyond language translation, who also bridge medical jargon with cultural expectations. Moreover, this investigation also points out the importance of succinct yet technically accurate renditions known as "telegraphic translations" to assure better understanding and compliance with treatment regimes. Through a systematic analysis of what can be said explicitly versus leaving out certain information telegraphically, this study adds to the literature on enhancing healthcare access and safety through accurate interpretation.

2 Translation

2.1. Definition of Translation

Translation one language to another with the aim of understanding and conveying an idea or message accurately. Telegraphic is the process of transferring meaning from messages that contain many omissions pose a new challenge for analysis, as a sentence with an omission causes a higher degree of ambiguity than a sentence without an omission. The question of how to analyze

telegraphic messages accurately and efficiently becomes a crucial issue in machine translation.

Machine translation (MT) systems are known to benefit greatly from user feedback and continuous improvement of the system's dictionaries. Translators' reactions reveal a variety of attitudes toward machine translation, some supporting and others contradicting several points of conventional wisdom regarding the relationship between machine translation and human translators.

Translation has become an integrated educational tool that students use to learn to translate ideas, not words. Comparing the grammatical and semantic systems of the target languages and the source languages and the cultural contexts in which they operate, authentic translation helps them expand their appreciation of the semantic expansions and limitations in their first language. The translator aims to transform the original text accurately, paying attention to style and cultural context to ensure correct understanding by the target reader or audience. (Lee, 1997).

2.2. The Types of Translation

Among the types of telegraphic translation are written and oral translation. They can be defined as follows:

- **Interpretation:** It is a useful educational tool and also extends to interpretation within a language. It is suggested that interpretation has a special role to play in developing three components of communicative competence: lexical-grammatical, sociolinguistic, and discourse. A detailed description of the practice of interpreting with advanced learners is presented, and suggestions are made for adapting the technique. With learners at other levels, this translation aims to convey understanding quickly without placing great emphasis on linguistic or literary accuracy. Simultaneous translation is the process by which professional translators translate texts immediately in a short period of time (America & Camelot, 2007).
- **Translation:** Translation is important in providing high-quality texts, whether literary, scientific or technical, in an accurate and artistic manner, with attention to style and expression. The purpose of written translation is to enable trainees to form the correct structures as quickly as possible in conveying written texts. Or spoken from one language to another, and most translators and interpreters

must be prepared to work on any topic. These exercises included repeating the source language and then, reading in the first language while listening to the second language, copying, paraphrasing, summarizing, and translating with or without visual support, and increasing cultural sensitivity. All of these were designed Exercises for students who are fluent in both languages (Nadstoga, 1989).

Types of written translation include:

- **Literal translation:** It is concerned with translating medicines, doses, and health instructions in a literal and accurate manner without changing the expressions. It aims to provide accurate translation of medical information.
- **Standard translation:** It depends on condensing complex medical terms and simplifying them to be more understandable to the target mirror. This method aims to provide a comprehensive and understandable translation of the prescription.
- **Summary translation:** It relies on simplifying complex medical terms and ignoring minute technical details. This method is used when the goal is to provide a fast and simplified translation of the target mirror.

2.3 Methods of Translation

Translation is a multifaceted task requiring not only linguistic competence but cultural and contextual awareness as well. Scholars like Lvovskaya (2000) and Munro (1999) compared various approaches to translation each contributing different insights into the potential ways in which meaning can be transferred from one language to another.

2.3.1 Literal vs. Free Translation

Lvovskaya stresses the difference between word-for-word (literal) and sense-for-sense (free) translation. This word-for-word translation focuses on structural fidelity, with the original syntax and lexical selection being maintained, which can prove beneficial in legal or technical texts, where precision matters the most.

However, this can result in unnatural and confusing translations in the event the target language has a different grammatical structure (Lvovskaya, 2000).

Conversely, priority in free translation is placed on the conveyed meaning rather than strict observance

of form. It is a less formal approach, and translators can convey idioms and metaphors, as well as culturally-bound allusions, in a form that will be comprehensible. Lvovskaya argues the best approach typically comes halfway between the two, depending on the nature and aim of the text.

2.3.2 *Communicative vs. Semantic Translation*

Munro (1999) develops further the semantic and communicative concepts of Newmark (1988). Communicative translation aims to evoke the same effect on the target audience as the source text, with fluency and naturalness being the focal point. It is a method employed in advertising, literature, and the media, where the reader interest takes precedence.

Semantic translation makes a concerted effort to maintain as close an adherence to the original meaning of the author as possible at the expense of a potentially more foreign sound.

This method Munro advocates as best suited to scholarly, philosophical, or religious writings in which fidelity and authenticity are paramount.

2.3.3 *Adaptation and transcreation*

The two authors both acknowledge situations of cultural adaptation or transcreation as unavoidable—especially for marketing materials or literature—when word-to-word translation fails to resonate with the new culture. Under these circumstances, translators may redesign the material from the ground up while maintaining the core meaning.

3 Telegraphic Grammar

3.1 Definition of Telegraphic Grammar

Telegraphic Grammar is defined as a condensed syntactic style that relies on omitting function words (e.g., articles, conjunctions) for the purpose of brevity that is prevalent in clinical notes (Müller & Cheng 2023). Example:

- "The patient should take the medication with food." in the telegraphic grammar:
- "Take medication with food."

When it comes to translation, it can be more illustrative through the following two examples:

- Word-for-word, to maintain syntax ("Hypersensitivity" → "فرط الحساسية").
- Culturally tailored to take cultural aspects into consideration "alcohol dependency" → "إدمان المشروبات الروحية" Al-Esawi (2021)

Telegraphic rules: It is one of the rules and instructions that are used in translating medical drug papers. Telegraphic rules can be used in translating drug papers to ensure the accuracy of

the translation and the correct translation of the scientific names of drugs, standards, medical units, medical contraindications, medical uses, storage and preparation, medical articles, medical publications, and other medical instructions and usefulness. This translation is to make it easier for patients to view and understand its content, and they must adhere to the instructions in the medical medication sheet.

Medical translation: provides a step-by-step educational approach to medical translation and focuses on teaching tasks that focus on the learner and learning. In summary, the main difficulties in medical translation are students' lack of medical knowledge and their unfamiliarity with medical terms and phrases. These difficulties can be partially overcome through a bilingual introduction to the main anatomical terms, diagnostic terms, symptomatic terms, surgical terms, laboratory tests, and clinical procedures related to each body system (Al-Esawi, 2021). The aspect of extensive practice in actual translation Your medical translation course should also include information on useful reference materials; Latin and Greek roots, suffixes and plural forms; Common medical abbreviations; "Normal" versus medical terminology; Medical English style; The standard format for medical journal articles (Malmkjær, 2019).

3.2 Characteristics of Telegraphic Grammar

- **Accuracy and focus:** The translation must be accurate and reliable, and contain all the necessary information for the patient and the doctor. Recognizing medical entities, which is an essential task in language processing of clinical data, has been studied extensively in the analysis of admission notes in alphabetic languages such
- as English. Currently, the best performance for named entity recognition in medical notes is obtained by neural network-based systems. These supervised systems require fine-grained features in order to learn well-fitted models from training data, for the purpose of recognizing medical entities such as drugs and adverse drug events (ADE). Because it is an important issue before training the neural network (Faiq, 2005).
- **Linguistic compatibility:** The translation must be compatible with the target language, and use the correct terminology and appropriate medical concepts. Processing medical language can become one of the major issues in health care because it allows access to the "treasure trove of

information" that remains buried in various medical documents. The title and abstract are the most important parts of the paper. It is important for editors who will scan the title and abstract to decide whether it should be sent for external peer review; For reviewers, who will get a first impression of the paper and for readers, as the title, abstract and keywords are often the only parts of the paper that are freely accessible to everyone online, including readers in developing countries. Translation can and should be considered a valuable art form. By studying the concepts of creativity and their relationship to translation and focusing on how the originality of translation appears in texts, the author explores a group of texts and their translations, in order to clarify the original translation rather than the derivative translation. (Skeppstedt & Kvist, 2014).

- **Technical compatibility:** The translation must be compatible with the systems and programs used in the medical institution. Medical records represent a highly specialized field, which can superficially be described as having telegraphed sentences with displaced or missing words, abundant abbreviations, spelling variations including misspellings, and jargon. Medical texts may be difficult for laypersons to understand, due to the repetition of specialized medical terms. However, replacing these difficult terms with easier synonyms can improve readability. Word difficulty was assessed not only by measuring the frequency of the word in a general corpus, but also by measuring the frequency of substrings of words (Cals, & Kotz, 2013).
- **Cultural compatibility:** Cultural compatibility: The translation must be compatible with the target culture, and take into account cultural differences in terminology. and medical concepts. Despite this situation, the study of translation has made great strides over the past two decades or so. The contributions of many scholars from different parts of the world and from different theoretical and cultural backgrounds have influenced the issues and trends that have characterized the study of translation at both the macro and micro levels. Many translators and translation theorists emphasize one style or another of translation. One such guideline was "equivalence," the search for which led translators to focus on either "method" or "substance," ignoring the fact that all texts are the product of a unique unity between both. Translation scholars have

also traditionally shown little interest in theorizing scientific translation.

Recent conceptualizations of science as a public culture, institution, narrative, and rhetorical practice open the way for research in science translation to take conceptual and methodological inspiration from discourse studies, rhetoric, sociology of science, history of science, philosophy of science, and other related fields. (Olohan & Salama -Carr, 2014).

4 Analysis of Medical Guidelines Translations

4.1 Methodology

This study adopts a qualitative description line of inquiry in researching telegraphic translation's efficacy in medical texts and how telegraphic rules are applied by student translators in practice. The most significant aspects to the approach are (1) data selection, (2) analytical framework, and (3) procedural steps.

4.2 Data Selection

To ensure a focused and detailed study, the study is informed by a purposive sample of six easily accessible medical drug inserts found in hospitals and pharmacies. The drug inserts provide essential information such as dosage, side effects, contraindications, drug interactions, and directions for use. The documents were selected based on the following criteria Initially written in English and later translated into Arabic (vice versa).

Represent generic drug products intended for general therapeutic purposes (such as pain relievers, antibiotics, anti-allergens) Exemplify how telegraphic style characteristics are applied in translation (e.g., auxiliary verb deletion, restricted use of articles, emphasizing key words). They are either authentic medical pamphlets from real life or student translations done for translation practice.

Thirty third-year translation students (N=30) who have studied a course in medical translation are selected and given the aforementioned data to be translated and compared with the professional translation by WHO organization manual.

4.3 Analytical Framework

Translation analysis, comparative translation analysis, and error typology are utilised to conduct the study. The most critical factor is telegraphic translation rules—style typical in medical texts with a view to ensuring concision and clarity. The primary linguistic items explored are: Accuracy

and focus, Linguistic compatibility. Patterns of omission.

4.4 Procedure Steps

Students are introduced to telegraphic translation and how it can be applied in medical contexts, with illustrative examples from real-life pharmacy translation. Students can use medical pamphlets to be translated independently, applying telegraphic concepts in a concise yet understandable format. Compiling versions: The student translations are collected and scanned for error, omissions, and deviations from telegraphic guidelines.

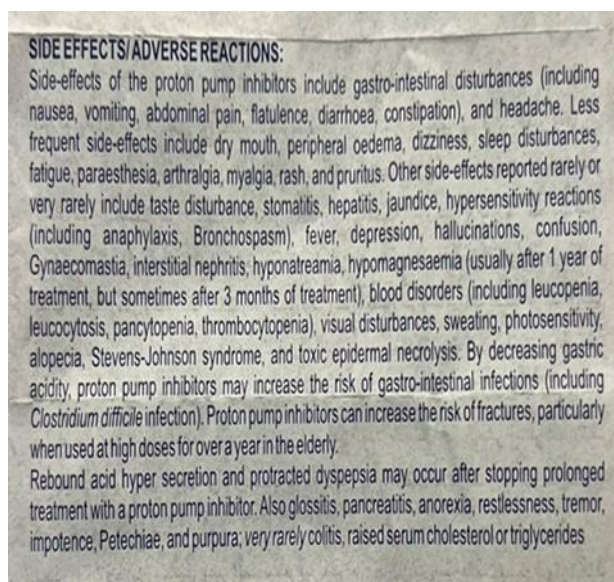
Each student translation is compared against a professional translation of the same document (where feasible) to highlight differences in approach, accuracy, and style. Classification of Error Types: The errors are categorized—semantic, syntactic, terminological, and stylistic—based on nature and impact. Discussion and Reflection: The students are holding a follow-up discussion to consider their decisions, problems, and translation strategies.

Synthesis: The findings of error analysis are combined with comparison studies to formulate more general conclusions about telegraphic translation's function in medical translation and problems experienced by novice translators.

4.5 Selected Examples

4.5.1 SIDE EFFECTS/ADVERSE REACTIONS:

Adverse effects of the proton pump inhibitors are gastro-intestinal upset (abdominal pain, flatulence, nausea, vomiting, diarrhea, constipation) and headache. Dry mouth, peripheral oedema, dizziness, sleep disturbance, paraesthesia, arthralgia, myalgia, rash, and pruritus are less common adverse effects. Other adverse effects which occur rarely or very rarely are disturbance of the sense of taste, stomatitis, hepatitis, jaundice, hypersensitivities (anaphylaxis, Bronchospasm), fever, hallucinations, depression, confusion, Gynaecomastia, interstitial nephritis, hyponatremia, hypomagnesaemia (in the majority of cases after 1 year of treatment, but in a few cases after 3 months of treatment), blood disorders (leucopenia, leucocytosis, pancytopenia, thrombocytopenia), disturbance of sight, sweating, photosensitisation, also Proton pump inhibitors can increase the risk of fractures, particularly a large dose for over a year in the elderly. Rebound hypersecretion of acid and recurrent dyspepsia can result after withdrawal and prolonged therapy with a proton pump inhibitor. Also anorexia, restlessness, tremor, impotence, Petechiae, and purpura; rarely colitis, raised serum cholesterol or triglycerides.



الآثار الجانبية/ردود الفعل السلبية:

تشمل الآثار الجانبية الأخرى التي تم الإبلاغ عنها نادرًا أو نادرًا جدًا اضطراب التذوق، والتهاب الفم، والتهاب الكبد، والبرقان، وتفاعلات فرط الحساسية (بما في ذلك الحساسية المفرطة، والتشنج القصبي)، والحصى، والاكتئاب، والهلوسة، والارتباك، والتثدي، والتهاب الكلية

تشمل الآثار الجانبية لمثبطات مضخة البروتون اضطرابات الجهاز الهضمي (بما في ذلك الغثيان والقيء وآلام البطن وانتفاخ البطن والإسهال والإمساك) والصداع. تشمل الآثار الجانبية الأقل شيوعًا جفاف الفم، والوذمة المحيطية، والدوخة، واضطرابات النوم، والتعب، والمذل، وآلم المفاصل، وآلم عضلي، والطفح الجلدي، والحكة.

THE PRECAUTION AND WARNINGS:

Where analgesics are used long-term (>3 months) with administration every two days or more frequently, headache may develop or worsen. Headache induced by overuse of analgesics (MOH medication-overuse headache) should not be treated by dose increase. In such cases, the use of analgesics should be discontinued in consultation with the doctor. Care is advised in the administration of paracetamol to patients with alcohol dependency, severe renal or severe hepatic impairment. The hazards of overdose are greater in those with non-cirrhotic alcoholic liver disease. Label Warnings: Do not exceed the recommended dose If symptoms persist consult your doctor Keep out of the reach and sight of children Do not take with Immediate medion to paracetamol-containing producis advice should be sought in the event of an overdose, even if you feel well, because of the risk of delayed, serious liver damage, or ifleaflet present Immediate medical advice should be sought in the event of an overdose, even if you feel well.



شعرت حسناً، نظراً لخطر تلف الكبد المتأخر والخطير، أو وجود النشرة، يجب طلب المشورة الطبية الفورية في حالة تناول جرعة زائدة، حتى لو كنت تشير بحالة جيدة.

4.5.3 How to use Doktorin oral gel

Always use Doktorin oral gel exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure.

How to apply the gel:

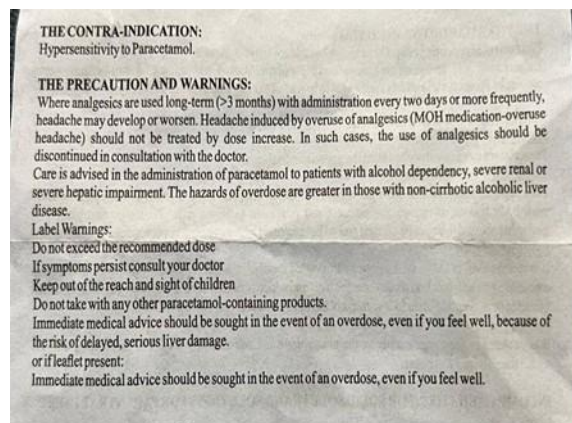
- Each tube of the gel is sealed the cap to pierce the seal use For oral use only.
- Keep the gel in the mouth as long as possible. Do not swallow it straight away.
- If the infection is just in the mouth, apply directly to the affected area with a clean finger.

الخلاي، ونقص صوديوم الدم، ونقص مغنيزيوم الدم (عادة بعد سنة واحدة من العلاج).

والعلاج، ولكن في بعض الأحيان بعد 3 أشهر من العلاج)، واضطرابات الدم (بما في ذلك قلة الكريات البيض، كثرة الكريات البيضاء، قلة الكريات الشاملة، قلة الصفائح)، واضطرابات بصرية، والتعرق، وحساسية للضوء، وتعب، ومتلازمة ستيفنز جونسون، وانحلال البشرة السمي. من خلال خفض حموضة المعدة، قد تزيد مثبطات مضخة البروتون من خطر الإصابة بالتهابات المعدة والأمعاء (بما في ذلك عدوى المطثية الصعبة). يمكن لمثبطات مضخة البروتون أن تزيد من خطر الكسور، خاصة عند استخدامها بجرعات عالية لأكثر من عام لدى كبار السن.

قد يحدث فرط إفراز الحمض الارتدادي وعسر الهضم المطول بعد التوقف والعلاج المطول بمثبط مضخة البروتون. أيضا التهاب اللسان، والتهاب البنكرياس، وفقدان الشهية، والأرق، والرغبة، والعجز الجنسي، نمشات، وفرفرية. نادرا جدا التهاب القولون، ارتفاع نسبة الكوليسترول في الدم أو الدهون الثلاثية.

4.5.2 THE CONTRA-INDICATION: Hypersensitivity to Paracetamol



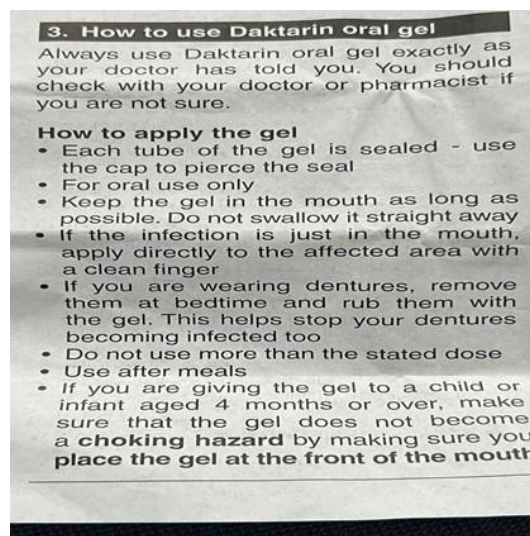
موانع الاستعمال:

فرط الحساسية للباراسيتامول التحذيرات والتحذيرات: عند استخدام المسكنات على المدى الطويل (> 3 أشهر) مع تناولها كل يومين أو أكثر بشكل متكرر، قد يتطور الصداع أو يتفاقم. لا ينبغي علاج الصداع الناجم عن الإفراط في استخدام المسكنات (الصداع الناجم عن الإفراط في استخدام الأدوية من وزارة الصحة) عن طريق زيادة الجرعة. في مثل هذه الحالات يجب التوقف عن استخدام المسكنات بالتشاور مع الطبيب. ينصح بالحذر عند إعطاء الباراسيتامول للمرضى الذين يعانون من إدمان الكحول أو القصور الكلوي الشديد أو الكبدى الشديد. تكون مخاطر الجرعة الزائدة أكبر لدى المصابين بمرض الكبد الكحولي غير التليفي. تحذيرات الملصق: لا تتجاوز الجرعة الموصى بها إذا استمرت الأعراض، استشر طبيبك، يُحفظ بعيداً عن متناول الأطفال وبصرهم، لا تتناوله مع المنتج الفوري الذي يحتوي على الباراسيتامول، ويجب طلب المشورة في حالة تناول جرعة زائدة، حتى لو

- If you are giving the gel to a child or infant aged 4 months or over, make sure that the gel does not become a choking hazard by making sure you place the gel at the front of the mouth.



- If you are wearing dentures, remove them at bedtime and rub them with the gel. This helps stop your dentures becoming infected too.
- Do not use more than the stated dose.
- Use after meals.



for the scar to recolor the standard time for the scar's recoloring is about 8 sec. The shorter the time is, the less rature is the scar

- If the scar is recoloring in less than a second (usually up to a month): The scar is not mature ye Apply the produc op the clean and dry scar with light touch. Flatten the skin on and around the scar by softly pressing with forefinger along the scar.
- If the scar is recoloring in 1 to 2 seconds: Proceed to a palpate roll massage wih thumb and forefinger along the scar. Pinch softly the skin between fingers and drag it upwards Do this until the product has been completely absorbed (about 5 minutes).
- If the scar is recoloring after 3 seconds (usually 3 months after the procedure): The scar is mature Massoge the scar in stretching it along in order not to widen it. Use forefinger and middle finger unt the product has been completely absorbed (about).

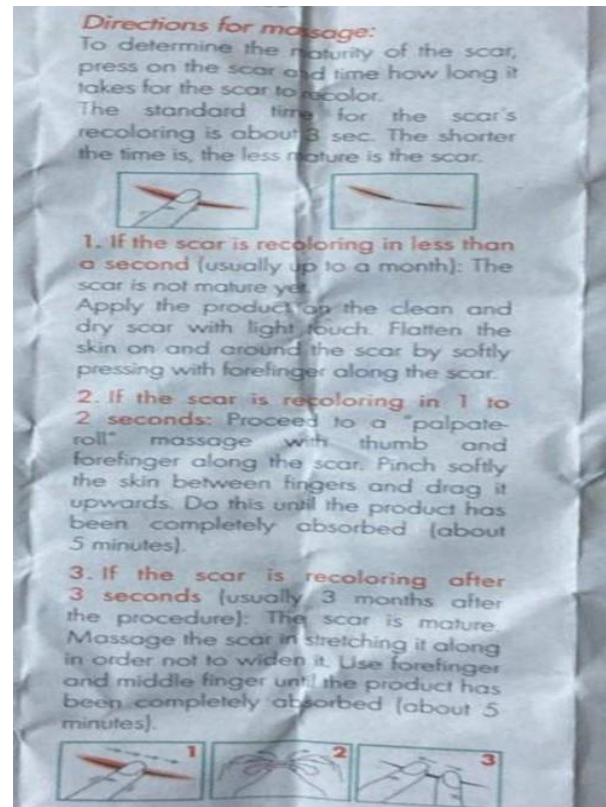
كيفية استعمال دكتارين جيل فموي:

استعمل دكتارين جيل فموي دائما وفقاً لتعليمات الطبيب. يجب أن تراجع طبيبك أو الصيدلي إذا لم تكن متأكداً.

كيف تستعمل الجيل

- الأنبوب المحتوي على الجيل مسدود - استخدم الغطاء لفتح السدادة.
- للاستخدام عن طريق الفم فقط.
- أبق على الجيل في الفم لأطول فترة ممكنة ولا تبتلعه مباشرة.
- إذا كانت الإصابة في الفم فقط، فاستعمل الجيل على المنطقة المصابة بأصبع نظيف إذا كنت تستخدم أسناناً اصطناعية، فقم بإزالتها عند النوم وافركها بالجيل.
- فهذا يحافظ على تجنب إصابة الأسنان الاصطناعية بالعدوى كذلك لا تستخدم أكثر من الجرعة المقررة.
- استخدمه بعد الوجبات.
- إذا كنت تضع الجيل لطفل أو رضيع بعمر 4 أشهر أو أكثر، فتأكد من أن الجيل لا يمثل خطورة الاختناق من خلال التأكد من وضع الجيل في الجزء الأمامي من الفم.

Directions for massage to determine the noturity of the scar, press on the scar and time how long it takes



تعليمات التدليك لتحديد مدى سوء الندبة، اضغط على الندبة وحدد المدة التي تستغرقها إعادة تلوين الندبة. الوقت القياسي لإعادة تلوين الندبة هو حوالي 8 ثوانٍ. كلما كان الوقت أقصر، قل معدل الندبة.

- إذا تم إعادة تلوين الندبة في أقل من ثانية (عادة ما يصل إلى شهر): الندبة ليست ناضجة، قم بتطبيق المنتج على الندبة النظيفة والجافة بلمسة خفيفة. قم بتسوية الجلد على الندبة وحولها عن طريق الضغط بلطف بإصبع السبابة على طول الندبة.
- إذا تم إعادة تلوين الندبة خلال 1 إلى 2 ثانية: انتقل إلى تدليك جس اللف باستخدام الإبهام والسبابة على طول الندبة. قم بقرص الجلد بلطف بين الأصابع واسحبه لأعلى. افعل ذلك حتى يتم امتصاص المنتج بالكامل (حوالي 5 دقائق).
- إذا كان لون الندبة يتغير بعد 3 ثوانٍ (عادةً بعد 3 أشهر من الإجراء): الندبة ناضجة ذلك الندبة في الداخل قم بتمديده حتى لا يوسعه، استخدم السبابة والوسطى حتى يتم امتصاص المنتج بالكامل (حوالي 5 دقائق).

5 Discussion

Translation of medical product guidance documents requires accuracy, clarity, and application of telegraphic grammar, that is, use of a compressed language structure which still preserves key medical information, but eliminates non-essential words. Thus, bad translation can result in misinterpretation, patient injury, or lawsuits due (for example) to misinterpretation of dosing instructions or contraindications. This paper defends a mixed: between - literal and adaptation

approach to the translation of medical guidelines, which seeks to translate medical literature without loss of precision and maintaining the overall cultural and functional context, or, in other words, maintaining precise terminology presented in understandable terms for patients.

4.5.1 Literal Translation for Terminological Accuracy

In medical translation, one has to follow precision at all times and avoid misleading compromises. The "telegraphic" form -which dispenses with articles, pronouns and conjunctions- should be maintained in translation in order to keep clinicality.

Example (4.1a):

- The original text (EN): "*Side-effects of the proton pump inhibitors include gastro-intestinal disturbances (including nausea, vomiting, abdominal pain).*"
- Correct Translation (AR): "تشمل الآثار الجانبية لمثبطات مضخة البروتون اضطرابات الجهاز الهضمي (بما في ذلك الغثيان والقيء وآلام البطن)."
 - The error (Literal Omission): Translating "*gastro-intestinal disturbances*" as "اضطرابات معوية" (intestinal disturbances) omits "*gastric*," altering the meaning.

Theoretically speaking:

- Newmark's Semantic Translation (1977): puts first exact meaning retention, crucial for medical texts where a single term

(e.g., "hypersensitivity" vs. "allergy") may dictate treatment.

4.5.2 Adaptation of Function for Patient

As long as telegraphic grammar compresses a text, patients who are facing materials (e.g., dosage instructions) demand functional balance as put by Nida & Taber (1969) to ensure usability.

Example (4.1c):

- The original text (EN): "Keep the gel in the mouth as long as possible. Do not swallow it straight away."
- The adapted Translation (AR): "أبقى الجيل في الفم. لا ابتلعه فوراً."
- Telegraphic modification: The imperative "Keep" turns to be "أبقى" (retain), a concise but a clear directive.

Theoretically speaking:

- Following Skopos Theory (Vermeer, 1978): The "purpose" here is patient's commitment; thus, translations must put brevity with clarity at the same level of importance.

4.5.3 Cultural and Syntactic Compatibility

Medical translations are deemed to align with linguistic norms and cultural manifestations of the target audience.

Example (4.1b):

- The original (EN): "Care is advised in the administration of paracetamol to patients with alcohol dependency."
- The cultural Adaptation (AR): "يُنصَح بالحذر عند إعطاء الباراسيتامول لمرضى إدمان الكحول."
- Main modification: "Alcohol dependency" → "إدمان الكحول" (alcohol addiction), a culturally unambiguous term.

Theoretical speaking:

- Katan's Cultural Equivalence Account (1999) focuses on medical taboos (e.g., alcohol in conservative societies), a matter that necessitates lexical sensitivity.

4.5.4 Difficulties and Solutions to Telegraphic Translation

a. Omission Risks

Telegraphic texts often drop conjunctions (e.g., "which," "that"), a matter that is risking ambiguity:

See (4.1a): "Proton pump inhibitors may increase the risk of fractures."

- The ambiguous Translation: "مثبطات مضخة البروتون تزيد خطر الكسور" (the missing word "may" implies certainty.)

- Addressing such a problem can be: "قد تزيد مثبطات مضخة البروتون من خطر الكسور."

b. Use of abbreviation Consistency

Consider the following (e.g., "ADE") must be standardized:

- Example: "Adverse Drug Events (ADE)" → "أحداث دوائية ضائرة" (ADE) with footnoting when it is first used.

4.5.5 Addressing such a problem can be: Hybrid Approach

Such analysis brings a three-tier strategy:

- Literal translation used for Terminology: this indicates preserving of the exact medical terms (e.g., "myalgia" → "ألم عضلي").
- Function Translation used for the instructions: Here adapting patient directives for the sake of clarity (e.g., "Apply with a clean finger" → "ضع الجيل بإصبع نظيف").
- The Cultural Translation for Compliance: addressing sensitive terms (e.g., "alcohol" → "الكحول" in clinical contexts to be replaced by "المشروبات الروحية" in public health warnings).

6 Conclusions

This study has come up with the following Conclusions:

- **For Educators:** Simulate EHR translation scenarios with AI feedback.
- **For Policymakers:** Mandate bilingual review panels for medical leaflets.
- All in all effective translation of medical guidelines highly relies on telegraphic precision that is not to neglect clarity. The hybrid approach, as introduced by this study and as found in semantic accuracy, the functional translation adaptation, and cultural translation competence can addresses the dire needs of clinical register and patient safety.
- Medical translation has become an essential means of transferring medical knowledge between different languages, and the demand and need for it has increased. Therefore, translators are deemed to follow the database of WHO in terms of English- Arabic translation of the medical terminology.
- Medical translation: It is the process of transferring medical information from various medical documents and documents from the source language in which they were written to another language, which is the target language. It is considered one of the branches

of scientific translation that addresses those with experience and specialists in the same field. Accordingly, teachers, professors and curriculum designers are to prepare translation textbooks where medical translation is given due attention.

- Changing a single letter or number in this type of translation may lead to many problems that may reach the extent of causing harm to the lives of others, unlike regular translation, where you can modify and formulate speech. Here comes the need to introduce any medical product with bi, tri, or multi-lingual panels for the medical leaflets.

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