A NEW BILINGUAL DICTIONARY FOR MEDICAL PROFESSION

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Abstract The paper describes development of a new bilingual, English-Serbian Serbian-English, medical dictionary. The need for technical dictionaries has been strongly felt in Serbia. In the area of medical language, there is only one comprehensive, multilingual dictionary (Dr A. Kostic), and two smaller English-Serbian dictionaries (J. Arneri-Georgijev and J. Markovic). Till 2007, there was no Serbian-English medical dictionary. The Medical Dictionary (English-Serbian Serbian-English) by Dr S. Micic (2007) is intended for medical and allied professionals. It is based on collocational approach, offering examples from relevant medical resources. The dictionary provides Serbian medical terms either forgotten or rejected in favour of Greco-Latin terms predominantly used by Serbian doctors. The use of Serbian medical terms as translation equivalents is an attempt to standardize the Serbian medical language which is a disorganized mixture of Greco-Latin and anglicized terms (this also applies to other languages of limited diffusion). The author of the dictionary has been involved in teaching Medical English for over a decade. Medical undergraduates can make most of the dictionary by mastering pronunciation of medical terms as well as relevant and frequent medical terms and collocations. Listening, speaking, reading and writing are significantly improved by using the dictionary.

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1. Introduction

For many years, the need for technical dictionaries has been strongly felt in Serbia. There have been few linguistic reference books on which professionals of different disciplines can rely. In the area of medicine, there is only one comprehensive multilingual dictionary by Dr A. Kostic published in the last century and two modern smaller English-Serbian medical dictionaries by J. Arneri-Georgijev and J. Markovic. Till 2007, there were no attempts to create a Serbian-English medical dictionary. This gap was bridged by publishing a new bilingual dictionary for medical profession, The Medical Dictionary (English-Serbian Serbian-English) by Dr S. Micic (2007), a result of multi-year lexicological and lexicographic work in the field of the language of medicine.

2. Language of Medicine

Occupational registers provide an efficient code for the transfer of information among specialists, because they provide a practical and convenient shorthand for talking about complex matters specific to a field. Medical language is the occupational register of physicians and it is largely opaque outside the medical community. Several authors have commented on one particular feature of medical language. McCullough (1989) and Mintz (1992) see medical language as an abstract discourse about disease and organs and emphasize its distancing function, an artifact of its commitment to objectivity. Crookshank (1923), Cassell (1976), Warner (1976) and Fleischman (1999) have commented on the lexicalisation of diseases as static entities rather than dynamic processes (Fleischman, 2003).
Greek and Latin are still the core of scientific terminology and the basis for medical language studies. The most systematic continuing use of medical Greek and Latin is in the official Nomina Anatomica (anatomical terms, abbreviated NA), a standardized list of anatomical terms. However, in the last 30 years of the twentieth century, English has been rapidly exported from and imported into many languages through the dominant role of the U.S. in computer science and technology as well as medical technology. So, in addition to the Greco-Latin heritage there is knowing the current mix of standard English from all scientific and technological sources, including new eponyms, acronyms, abbreviations and trade names. Biochemistry, cell and molecular biology, immunology and bioengineering are the chief sources for the flood of new terms entering the medical dictionaries (McMorrow, 1998). According to a July 24, 1995, article in US News and World Report, about 25,000 new English words are coined every year, of which 4% make it into dictionaries. The catching up with English goes on continually in native languages, by either finding adequate native words, borrowing from English, or adapting English words to native languages (sometimes poorly) (Segura, 1998).

Medical language is characterized by terms of specialist vocabulary, technical words, on one hand, and semi-technical, subtechnical or academic words that occur across a number of disciplines (Jordan, 1997). The second category are context-independent words, words that have extended meanings in technical contexts (Trimble, 1985). Finally, there are noun compounds or strings, two or more nouns plus necessary adjectives that make up a single concept, i.e. express a ‘single noun’ idea.

Jammal (1988) comments that science flies and its terminology walks – typically at a pace that lags far behind scientific advances. New disease names emerge, and changes are observed in the meanings of established disease names. Medicine is so highly compartmentalized that, for
example, one’s background in surgery and emergency medicine offers little help when one is faced with a dermatology translation. This makes research crucial (O’Neill, 1998).

As far as the Serbian language is concerned, there has still been no established and widely accepted language of medicine in medical publications. In earlier times, there used to be a tendency to use popular terms in medical articles. Today, there are no justifications for this, since those are publications of professionals for professionals (Slavkovic, 2004). Still, when writing for a scientific journal, in the same context, it may happen that one Serbian author uses one term (e.g. *rilising hormon*), another may use *oslobadjajuci hormon* and the third one may use *liberin* (Micic, 2004). Another feature is that Serbian medical terms have been either forgotten or rejected in favour of Greco-Latin terms predominantly used by Serbian doctors. Finally, with the increasing influence of English as an international language of medicine, there have appeared numerous anglicized terms. This also applies to other languages of limited diffusion. Thus the Serbian medical language is a disorganized mixture of Greco-Latin and anglicized terms.

### 3. Medical Dictionaries

There are many different types of dictionaries designed for native speakers (monolingual) and for foreign students, called learner’s dictionaries (monolingual or bilingual). Medical dictionaries belong to a special sort of learner’s dictionary, the specialist dictionary, aimed at professionals or students with a strong interest in a professional field of medicine, where the focus is on key terms too specific for general learner’s dictionaries (Wright, 2001). Users of such dictionaries will have to use the target language in a professional way, and this means that they are expected to find a solution for a language problem they have not encountered before.
However, there are several drawbacks that dictionaries have no matter whether they are general or specialist. The majority of them are organized on the word principle and the main problem of single words, from a semantic perspective, is their polysemy, ambiguity and fuzziness. For most of the words there are many alternatives of how to translate them and the dictionary cannot tell us which of the alternatives we have to choose in a particular case (Teubert, 2004). Available bilingual medical dictionaries – not to speak of multilingual ones – are largely useless. Many seem to consist largely of cognate-type translations which ignore real usage in current practice (O’Neill, 1998). Mono- and bilingual dictionaries may help in certain cases, because terms which belong to borderline areas cannot be easily identified by such a procedure. The basic meaning which a word is given in the dictionary is not necessarily the same as the meaning it will have in the context at hand (Lee-Jahnke, 1998). This means that the context will nearly always have some effect in the meaning of a unit, so the problem of the description of meaning can be traced back to the rigidity and frequent irrelevancy of the lexicons that supply the meanings (Sinclair, 1998).

An additional drawback is that words have different meanings in technical and ordinary language. Patients and medical professionals have different understandings of the same words. And, ultimately, according to Jammal (1988), the decision about which word should be chosen to refer to a concept or disease entity is made by specialists rather than lexicographers (Fleischman, 2003). This implies that in-depth medical knowledge is necessary in order to make fine judgments on the appropriateness of terms in a particular context (Wakabayashi, 1996).

Several authors have commented on the importance of medical dictionaries to be up to date. Medical dictionaries have to decide what to delete from past editions as no longer useful and what to add from the maelstrom of current research language. It is critically important not to become archaic (McMorrow, 1998). Scientific and medical dictionaries
are both a help and a hindrance to the translator. No dictionary can be totally up to date – even those that now appear on the Internet. Many of the terms have already lost their reason for being, have changed or been discarded (Segura, 1998). Dictionaries always lag behind and often fail to solve the immediate problem, especially in the field of medicine, where progress develops at a fast pace (Van Hoof, 1998). Scientific dictionaries are all too soon out of date. They often need revision the very moment they are published (Lee-Jahnke, 1998).

Finally, there is lexical change and semantic shift in medical language. To take an example of monolingual (English) disease nomenclature, the English category “arthritis” has undergone changes: “gout” has narrowed in meaning from subsuming all arthritis to one specific type; “lumbago” as a type of arthritis is now known only to elderly people; and “rheumatism” has gone from being a technical to a lay term (Fleischman, 2003).

4. Medical Dictionaries in Serbia

Medical lexicography in Serbia has not been prolific. There have been few dictionaries and, due to huge technological advances in medicine, there has been expressed a great need for such books. What follows is the description of three dictionaries (one multilingual and two bilingual) published till 2007.

The foundations of the Serbian medical lexicography were laid by a Serbian doctor. The Multilingual Medical Dictionary by Dr A. Kostic, Professor of Histology, published in 1956 included five languages (Latin, German, English, French and Serbian). In 1971 Russian and Italian were added and the third edition, in 1976, was developed in cooperation with his wife, Dr S. Kostic-Jokic, Professor of Paedicatrics. It was four times bigger and with the addition of Dictionary of Eponyms it included 120,000 words. Dr Kostic made a valuable contribution to rebuilding and
improving the Serbian language of medicine. He used four processes in developing his dictionary: transcription (e.g. Latin ablatio, Serbian ablacija), transliteration (e.g. Greek cirrhosis, Serbian ciroza), transfer (e.g. Latin post mortem, Serbian post mortem) and translation (e.g. German purgieren, Serbian pročistiti). Dr Kostic regarded English and Latin dictionaries as basic dictionaries for all others. He noticed that Serbian was full of synonyms so he included many popular, provincial and dialect-specific terms in his dictionary. However, in time, many of these terms have become obsolete and discarded and are no longer used.

The second lexicographic edition worth mentioning is a bilingual, English-Serbian, medical reference book by an English language professional. Medical Words You Need by J. Arneri-Georgijev was published in 1998 and, as the author herself mentions, it was intended for general practitioners and medical students. The specificity of this lexicon is that the terms are not classified alphabetically, but according to a particular medical area, symptoms and signs, risk factors, complications and diagnostics. The first edition had three sections: the first included general medical terms, the second twenty four medical areas with most frequent terms and characteristic doctors’ questions, and the third consisted of characteristic phrases and medical forms followed by medical proverbs. Each term was followed by pronunciation. The later editions More Medical Words You Need were expanded (the sixth edition had 6,000 words) and to the last two editions – the seventh and the eighth, published in 2005 – there was added the fourth section: a comprehensive index of all terms used in the lexicon.

Medical dictionary, English-Serbian by J. Markovic, was published in 1996 and had over 30,000 words. The latest edition in 2007 was expanded with 5,000 words. As a linguist, she consulted medical professionals, used previous translations and added illustrations. However, there is no pronunciation of terms. As to translation equivalents, a mixture of foreign, anglicized, and Serbian words is
offered (e.g. *labial: usneni, labijalan*) without a systematic approach to their use.

All the above dictionaries are organized on the word principle, ignoring a compound, multi-word units (collocations), set phrases or even full sentences. Every language is full of units of meaning larger than the single word. Collocations are not only statistically significant but also semantically relevant as they have meaning of their own. Furthermore, till 2007, there was no attempt to create a Serbian-English medical dictionary.

5. New Bilingual Medical Dictionary

*The Medical Dictionary (English-Serbian Serbian-English)* by Dr S. Micic was published in 2007. The author is an experienced English language professional working as an Assistant Professor of English for Medical Academic Purposes for over a decade. The dictionary includes around 40,000 entries in both languages. For all entries, there are translation equivalents in the corresponding language with necessary synonyms and their stylistic features.

The principle followed in the dictionary was the following: for each English term an adequate Serbian word was found; if that was not possible, a word was borrowed from English, but adapted according to the rules of the Serbian language.

In the English-Serbian dictionary, the English entries are followed by the phonetic transcription and involve important synonyms, eponyms, abbreviations, and surgical, diagnostic and laboratory methods in medical science and the medical profession. One building process is the combined use of Greek and Latin components in both English and Serbian: e.g. *adipolysis: adipoliza* where there are changes in spelling. English is specific in its propensity for the descriptive term drawn from
everyday speech as compared to Serbian which prefers the learned term: e.g. *wound: lezija*. Eponyms, terms adapted from the names of famous physicians or scientists come in very large numbers, are of two types: the proper noun has given rise to a common noun: e.g. *parkinsonism: parkinsonizam* or it has been kept as a proper noun to describe a disease: e.g. *Down’s syndrome: Daunov sindrom*. Eponyms can also refer to an anatomical notion, a procedure, a device and so on. A special attention has been paid to differences in English and Serbian where the English term is not an eponym: e.g. *exophthalmic goiter: Bazedovljeva bolest*. There are many abbreviations used in medicine and they are understood by everyone in the profession. Very often Serbian simply adopts the English abbreviations, e.g. *CNS: CNS*. In some cases there are changes: *DNA:DNK* where *A* is *acid* and the Serbian equivalent is *K* for *kiselina*. The problems arise when several quite different terms hide behind the same abbreviation, e.g. *ER* stands for *endoplasmic reticulum* but also for *emergency room*. As opposed to previous dictionaries, this one offers a lot of collocations, e.g. under the entry *stress* there can be found the following: *be under stress, suffer from stress, the stresses and strains of modern life, stress disorder, stress reaction, stress-related illness*. Many entries are enriched with new meanings and idioms that have recently come into usage. For new terms, non-existent in Serbian, both adaptation and description have been applied: e.g. *pacemaker: pejsmejker* but also *vodič srčanog ritma*. Special care has been taken with subtechnical vocabulary and such words have been translated in the context of medicine, not as they are commonly used, e.g. *course: tok bolesti, history: anamneza*. Finally, the names of pharmaceutical products can present problems for they often differ from one country to another. That is why generic names have been used to avoid confusion, e.g. *ampicillin: ampicilin*. Sentence examples from medical textbooks and journals have also been offered, e.g. under the entry *mumps* there are following examples: *He caught mumps from the children next door. She’s in bed with mumps. He can’t go to school – he’s got mumps.*
The Serbian-English medical dictionary is the first dictionary of its kind in Serbia. All the forgotten or neglected Serbian terms have been included, as well as those modern ones currently in use in medicine. There is synonym proliferation in Serbian: e.g. padavica, gorska bolest, gorica, gora for epilepsy. Not only the names of diseases, but also anatomical, physiological, and technical terms have several synonyms, e.g. ošit, prečaga, dijafragma for diaphragm. An effort has been made to standardize the Serbian language of medicine: e.g. out of three terms for diabetes used in Serbian: dijabet, dijabetes, and šećerna bolest, the first one was excluded as inadequate.

The decisions about the specific choices of words have been made by consulting medical professionals. The dictionary contains both old and sometimes unjustifiably discarded Serbian terms, but also new terms, created, borrowed or adapted from English, with the purpose to put them to regular use in medical practice. Efforts have been made to linguistically adapt new, ever emerging, terms coming as a result of huge technological advances, lacking in Serbian.

Finally, the dictionary has illustrations of the major bodily systems and diagnostic techniques with terms in both the English and Serbian languages.

6. Implications for Teaching

The most significant change in the domain of dictionaries has been the move from prescription to description. Now computers hold vast corpora of written and spoken English compiled from varied sources and provide frequent words in patterns that give detailed pictures about common word partnerships in actual use. Modern dictionaries describe English as it is actually used, so students have never had such a powerful tool to help them learn real English.
The *Medical Dictionary (English-Serbian Serbian-English)* by Dr S. Micic belongs to the new generation of dictionaries, based on authentic samples of the language and computer corpora, offering both more information about the behaviour of words and more reliable information. This fact potentially enhances the importance of this dictionary for medical undergraduates and professionals. It does far more than simply provide the meaning of a word – there are collocations, idioms, sentence examples as well as cross-references to related words or common opposites.

As a teaching resource, this dictionary can serve as a focus for communication and classroom interaction, because it naturally generates a great deal of thinking about meaning. It provides an extra source of medical information in the classroom and adds variety to lessons, so it is a helpful tool in improving all four skills in the use of both the English and Serbian medical language: reading, writing, listening and speaking. In the English-Serbian dictionary, there is phonetic transcription after each term which facilitates learning of pronunciation. Reading professional literature is also made easier because there is the wealth of modern terms offered.

### 7. Conclusion

The lexicographic field of medicine in Serbia has been enriched with *The Medical Dictionary (English-Serbian Serbian-English)* by Dr S. Micic. It provides a multitude of new medical terms followed by contexts of their use either in form of multi-word units and phrases or sentence examples from relevant medical sources. At the same time, the dictionary offers terms that have been forgotten or discarded, but are still in use in medical practice. Bilingual illustrations of the major bodily systems and diagnostic techniques represent a useful innovation in the field of lexicography. The special significance of this work is that it is the first Serbian-English medical dictionary. The effort has been made to
standardize the Serbian medical language. Standardization plays a crucial role because it provides norms to be followed by all the members of the medical profession. The fact is that national medical languages of developed countries have already been standardized which is not the case in many developing countries. By offering standardized Serbian terms in the dictionary, the idea has been to avoid the use of different terms for the same medical concept. Consultations with medical professionals have been made to make appropriate choices.

Rapid advances in medical science and technology require development of adequate lexicographic materials that will reflect increasing scientific innovations. Medical dictionaries and reference books have grown in number in developed countries and this trend seems to be followed by languages of limited diffusion. Future developments in medical science require constant, systematic work in the area of medical language to be done by both linguists and medical professionals.

Notes
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References


