

## MEDICAL TERMINOLOGY-BRANCH OF ESP

**Mirela Radu**

**Lecturer, PhD, "Titu Maiorescu" University of Bucharest**

*Abstract: English has become a necessity in the medical profession, especially in today's world where the need for global communication is growing. Both the academic and professional needs of future physicians include a solid foundation of medical knowledge acquired in the mother tongue which can be passed on and shared with professionals from other countries. Necessary both during studies and especially after graduation, English is today the universal language used by professionals to communicate and applied to the medical field it has become a real lingua franca. The communicative needs of the medical profession can only be met by the existence of a common language. English has become the language of science, media but especially technology. It not only satisfies the need to communicate in an increasingly global world but also ensures the acquisition of professional skills and access to a much wider fund of knowledge than does a national language. Application of it to a certain field is called ESP and this article is intended as a plea for the understanding the necessity to accept the EMP (English for Medical Purposes) as a branch of this common fund of academic knowledge.*

*Keywords: lingua franca, ESP, EMP, medical profession, interdisciplinary approach*

EMP is vital when we talk about textbooks printed by international publishing houses, accessing information from data bases but also when it comes to student interaction both in academic environment and abroad, especially that many foreign students continue their studies attending universities in our country. Sociolinguistics has long been studying how human communication is improved by adhering to a common language. English responds in today's society to this increased need for information dissemination and the medical field is one in which knowledge evolves rapidly and is shared by professionals by participating in conferences, congresses and through specialized publications. In the last decade, English has become the language in which most medical textbooks and journals are published, a true *lingua franca* of medicine.<sup>1</sup> As early as 2004, Kang noted the need to adopt English as the language of medical information and, as a result, an important component of the medical training of physicians.<sup>2</sup>

For EMP learning process to have the expected results, it must take into account the practical needs of physicians to communicate with both patients as well as to maintain a close contact with other members of the medical team. Thus, the variety of communication situations must cover these aspects as well as possible. The foundation of effective communication through English is to adapt the case study analysis system and to understand the mechanisms by which certain aspects of English differ from the native language. The

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<sup>1</sup> Iulia Cristina Frinculescu, *The physiology of English as a lingua franca in medicine*, in *Fiziologia-Physiology*, 2009, no. 62, p. 4-6

<sup>2</sup> S. J. Kang, *A Korean medical doctor's experiences in learning and use of English in the United States: Individual and environmental affective factors*, Paper presented at the Sixteenth Annual Conference in Ethnography, 2004

motivation of medical professionals has some components that make the EMP study have its own characteristics because their interest is focused on much deeper communication situations than we might encounter in the case of English applied to other fields such as technology, engineering, mathematics, etc.

The guiding principle of ESP is “Tell me what you need English for and I will tell you the English that you need.”<sup>3</sup> Starting from this linguistic truth, in the last decades we have witnessed a flourishing of the various applications of English in various fields. One of these, in visible expansion in the conditions of an increasingly medically uncertain world, is EMP. There is a relationship between the motivation of medical students to achieve EMP and actual learning, because as information is accumulated, students realize that their motivation grows stronger. Initiated as a more theoretical linguistic movement in the 1960s, ESP, with its branches applicable to various fields that have become increasingly important, has become a practical tool for more and more professional categories who have discovered in English communication the ideal way to spread knowledge and innovative ideas. Each branch of ESP has developed grammatical and lexical structures adapted to the respective field. EMP, like other branches of ESP, does not emphasize certain grammatical structures on which literary language is based. Thus, EMP does not use excessively grammatical structures such as conditionals, adjective agglomerations or the subjunctive but favors the use of unpublished lexical areas such as the plural of Greek or Latin origin and vocabulary of the same origin and compound nouns.

But beyond the applicable lexical or syntactic rules of EMP, what has a visible impact is the emphasis medical texts transmit. The EMP analysis must take into account the way in which the discourse of the medical field is constructed. Given the need for the rapid revolving of pathologists which could endanger the lives of patients, medical rhetoric has as its first goal the clarity of the information transmitted, the concise nature, concentrating the huge volume of information in a way as accessible as possible. Given the already existing difficulty of medical terminology, to which is added the fact that some terms may exist in both English and Latin or Greek form, EMP had to overcome some difficulties inherent in the field.

Starting from the difference between general or even literary language, Louis Trimble analyzes the techniques, functions and grammatical relations that can intervene in the applicable ESP discourse. The oratorical purpose of ESP is to be as pragmatic as possible, to facilitate the information dissemination and to avoid misunderstandings occurring among non-native people: “Rhetoric is the process a writer uses to produce a desired piece of text. This process is basically one of choosing and organizing information for a specific set of purposes and a specific set of readers. An EST text is concerned only with the presentation of facts, hypotheses, and similar types of information. It is not concerned with the forms of written English that editorialize, express emotions or emotionally based argument or are fictional or poetic in nature.”<sup>4</sup> Extrapolating and starting from these principles applicable to the field of ESP, EMP as its sub-branch, appeals precisely to these legitimacies. The need for as clear as possible discourse has transformed EMP into a field with a succinct expression adapted to specific requirements.

We believe that having in view the special challenges that EMP entails, medical terminology already so difficult should adapt to the subjects taught in the Medical School. Starting from the accumulation of anatomical terminology, following with physiology and

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<sup>3</sup> Tom Hutchinson, Alan Waters, *English for specific purposes: A learner-centered approach*, 1987, Cambridge University Press, p. 8

<sup>4</sup> Louis Trimble, *English for Science and Technology: A Discourse Approach*, Cambridge University Press, 1985, p. 10

biology, and all other relevant subjects, the purpose of EMP is to subspecialize in order to include increasingly specialized sectors such as genetics, surgery, pediatrics, etc.

One of the peculiarities of EMP is that it sometimes uses a double language that should be known by the future professional. If the English term is preferred in doctor-patient communication, in the communications between practitioners the terminology of Greek or Latin origin or derivatives of the latter is preferred. The examples are multiple: *colorectal surgery* (syn. proctology), *cold* (syn. coryza), *skull* (syn. cranium), *tailbone* (syn. coccyx), *collar bone* (syn. clavicle), *gallbladder* (syn. cholecyst), *forefinger* (syn. index), *gum* (syn. gingiva), *groove* (syn. sulcus), *bleeding* (syn. hemorrhage), *cold sore* (syn. herpes simplex), *posterior pituitary* (syn. neurohypophysis), *prevention* (syn. phylaxis), *platelet* (syn. thrombocyte), *jawbone* (syn. maxilla), *roof* (syn. tectum), *covering* (syn. tegumentum), etc. These are just a few of the examples in order to demonstrate how varied medical terminology is and to emphasize the need for as thorough lexical corpus as possible in order to meet the specific challenges of EMP. The learning process of EMP is therefore much more complex as it refers to knowledge of Latin, Greek which it combines with the latest discoveries in the field. The versatile capacity of EMP is amazing and goes beyond the lexical framework because it requires users to retain information in related fields: history, geography, general knowledge, literature, etc. We consider EMP to be an important sub-branch of ESP through the special intellectual connections it establishes, going beyond the strictly medical background.

Another challenge of EMP is the compound nouns that are novel and numerous in the medical field and require extensive knowledge of English and a rich associative capacity on behalf of the students. Examples of such compounds are: *armpit*, *windpipe*, *earache*, *waistline*, *heartburn*, *kneecap*, *overdose*, *food-poisoning*, *backbone*, *heart attack*, *painkiller*, etc. The fact that medical terminology can sometimes be too descriptive leads to an accumulation of terms that, in practice, are replaced by acronyms. And this aspect is a challenge in itself because practitioners must know the constituent terms and the referent to which reference is made. There are many examples of acronyms that can puzzle professionals, but we have selected just a few to understand their complexity MDS (*Myelo dysplastic syndrome*), SIDS (*Sudden infant death syndrome*), AFR (*Acute renal failure*), BPD (*Borderline personality disorder*), CBC (*Complete blood count*), etc.

Another aspect that could make it difficult for practitioners are the eponyms. Whether we are talking about pathologies, anatomical systems or ways of functioning of the body, the personal names used may belong to the doctors who discovered them (*Carrion disease*, *Broca's area*, *Darwin's tubercle*, *Rickettsiosis*, *Addison disease*), patients (*Lou Gehrig's disease*, *Hartnup disease*, *Mortimer's disease*), locations where they were discovered (*Ebola*, *Bornholm disease*, *Lyme disease*) and even point to literature and authors of literary works (*Miss Havisham syndrome*, *Plyushkin syndrome*, *Munchausen syndrome*). Some terms refer to socio-professional categories (*tennis elbow*, *housemaid's knee*, *mad hatter disease*).

An effective way to remember this accumulation of terminology is to learn the word family by using suffixes and prefixes. Affixation is, in itself, a new challenge because most prefixes and suffixes are of Latin origin. Cognitive theories of terminology find that morphological alternations follow certain rules because functionality is the main feature of EMP. Pre-nominal modifiers can be adjectives (e.g. *throbbing pain*, *severe hypotension*), participles (e.g. *IgA mediated leukocytoclastic vasculitis*, *sharp stabbing pain*) or adverbials (e.g. *antenatal depression*) or can be two juxtaposed terms (e.g. *myocardial infarction*). These varieties themselves come with a surplus of information and more complex meanings. At the same time, medical terminology has compounds that contain neoclassical elements, or a combination (e.g. *orthostatic hypotension*) in which the terms have meaning by themselves.

A few examples of prefixes of Greek and Latin origin used in creating medical terms are as follows: *di-*, *dia-* (G. through, between e.g. diaphragm), *helico-* (G. twisted e.g. helicotrema), *infra-* (L. below e.g. infraorbital), *omni-* (L. omnis, all e.g. omnipotent), *post-* (L. after, behind e.g. postaxial), *trans-* (L. across e.g. transpyloric), etc. Some instances of suffixes commonly used in creating medical words are: *-scopy* (G. skopein, to view e.g. endoscopy), *-coele* (G. koilia, hollow e.g. blastocoele), *-form* (L. forma, shape e.g. fusiform), etc.

Due to the difficulties already mentioned, EMP should focus on the ability to understand medical texts, on vocabulary development, on the most efficient use of English in interpersonal communication and on acquiring effective strategies by creating the student to retain as much volume of information as possible. Given these goals, EMP is a means of consolidating the knowledge already acquired during the specialized courses.

Another peculiarity of EMP compared to the other sub-branches of ESP is the fact that in the case of other fields, EMP learning is simultaneous with the acquisition of basic knowledge. In the case of the other fields (ESS, EBE) the acquisition of knowledge precedes the practice of English as long as in EMP the acquisition of theoretical and practical knowledge is done through English. EMP is probably the most adapted of all the fields of ESP to the practical needs and the enrichment of medical knowledge is concomitant with the learning of English because most specialized works such as anatomical atlases and auxiliary materials are published abroad.

Hutchinson and Waters systematized and hierarchically structured the vast field of ESL, which they described as a tree with the important sub-branch of ESP. In turn, ESP is subdivided into various domains but the constant remains the same: “The roots which nourish the tree of EST are *communication* and *learning*.”<sup>5</sup> The two authors, starting from the distinction made by Chomsky between *performance* and *competence*, conclude that specialized languages are, rather, a competence that the student acquires and that allows him to have access to a much wider range of information than classic grammatical structures could endow him. The difficulty that may arise is the lack of a methodology because having such a practical character the research methods are built during the actual interaction. The angle of approach of the EMP is a learning-centered one because the approach of this field is an interdisciplinary one.

Important aspects of communication in medical field such as the discussion between the doctor and the patient should not be neglected. An important aspect in the study of EMP are the narratives of patients as part of the the medical discourse and which are used by the professionals as a source of information to elucidate clinical dilemmas. The increasing development of this field, the increasing number of international medical articles, conferences and actions have made EMP, in recent years, an increasingly coagulated field that claims its own autonomy: “This undeniable growth in the volume of English-language medical literature was accompanied by an important body of linguistic and sociolinguistic research on written and oral medical discourse in English (...).”<sup>6</sup> Linguists founded the 1983 *EMP Newsletter*, which until 1990 had subscribers in more than 60 countries. This demonstrates that EMP is becoming an increasingly powerful field of study in the vast mass of language studies. Even if the purpose of this journal was more pedagogical, the first step, that of going out on the ramp was done. At present, the EMP focuses more on the practical aspect, the communication environment and the creation of a more reliable information transmission system. But, undoubtedly, the merit of the theoretical research of the '80s is to

<sup>5</sup> Tom Hutchinson, Alan Waters, *English for specific purposes: A learner-centered approach*, 1987, Cambridge University Press, p. 18

<sup>6</sup> Françoise Salager-Meyer, *Origin and development of English for Medical Purposes. Part I: Research on written medical discourse*, in *Medical Writing* 2014; Vol. 23, no. 1, p. 49

draw the attention of specialists to this emerging field. Subsequently, approaches to EMP began to be more and more varied, with numerous papers developing the topic.

Gibson Ferguson in the article *English for Medical Purposes* published in *The handbook of English for specific purposes* (2013), pointed out that the vocabulary that EMP makes available to medical students is much better assimilated if it is acquired during the years of study because the connections are much easily made with the material learned that moment. Possible difficulties seem to depend on the level of expertise if EMP is studied at the same time as the core subjects. EMP is a problem of communication nowadays and shifts the attention to the health care professional whose responsibility increases: “Communication (and language) are part of the overall development of the responsible professional, who is a reflective practitioner with an awareness of the workplace environment, and uses language to achieve professional goals within it.”<sup>7</sup>

EMP is an extremely technical language but combines medical jargon with practical needs. The teaching of this specialized type of language is not based on the same rules applicable to general language because the goal is to develop a medical language with implications in the socialization that doctors have with patients, colleagues and in formal settings such as conferences. The ultimate goal of EMP is to improve the communicative effectiveness of future health care professionals and the methodology must be based on practical, problem-solving content and combine newer and older approaches. The aim of students is for the use of language and less to use complex grammatical constructions and the curriculum should be based more on medical jargon than on grammatical structures because EMP is aimed at vocabulary acquisition. EMP courses, as part of ESP courses, should meet the immediate needs of future physicians who are closely related to the core subjects taught during the academic study.

If science is responsible for the well-being of patients and the transmission of information, the art of communicating in a specialized language such as EMP is the higher stage. The basis of this art is, therefore, the ability to obtain information, to analyze it as efficiently as possible but also to communicate in a language common to both the practitioner and the patient. The art of EMP “is the application of this medical knowledge combined with intuition and clinical judgment to determine which is the best diagnosis for each patient.”<sup>8</sup> EMP is the perfect intertwining of medical science and linguistics, of the body of medical knowledge, and of the art of working with terminology in a practical way. It is this unique aspect of intertwining the art of practical communication with theoretical information that transforms EMP into an increasingly independent field, although, linguistically speaking, it is still part of ESP.

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<sup>7</sup> John R. Skelton and Jan Whetstone, *English for Medical Purposes and Academic Medicine: looking for common ground*, in *Ibérica, Revista de la Asociación Europea de Lenguas para Fines Específicos*, 2012, no. 24, p. 94

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