

DOI 10.36074/logos-29.10.2021.v2.03

## HISTORICAL ASPECTS IN FORMATION AND DEVELOPMENT OF MEDICAL ENGLISH LANGUAGE

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With the course of time, English has established itself as the only language of international communication in the field of science and education. Medical science is not an exception: almost all articles in scientific publications are in English, it displacing other languages as a means of transmitting scientific information.

The English language had to run along a long evolution path through centuries under the influence of various internal and external factors before it became a *lingua franca* in medical communication.

International medical terminology, and English terminology as its component, has a history of almost 2,500 years. The languages of nations which contributed to medicine have left their traces in modern medical English. The oldest language having made a significant contribution to the development of medical terminology is Greek. It was the language of physicians' communication in ancient Rome, where in an effort to strengthen the power and prestige of the Roman Empire, much attention was paid to the development of the state. And despite low-paid and unprestigious doctor's work, the plague outbreak in 293 BC, arrival of eminent doctors as Soranos, Rufus, Galenos to Rome, as well as interest in medicine by famous scientist Aulus Cornelius Celsus, led to positive impact on development of medicine as a science, and beginning from the 1st century BC it began to develop rapidly in Rome. Because one part of the Roman physicians came from Greece or Asia Minor, others studied medicine in Athens, Alexandria, Pergamon or other Greek schools, the vast majority of Greek treatises on medicine were written in Greek. The first significant works in Latin were presented in Medieval Latin, which reminded rather Latinised

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Greek than classical Latin. Although Roman medicine alone did not make as many important discoveries as Greek medicine, one can't deny the fact that the Romans showed remarkable talent in organization and application of medical knowledge. While in ancient Greece the scientific style of speech was completely separated from the general language, in ancient Rome a new phenomenon emerged - bilingual Greek and Latin terminology (Andrews, 1947).

Examples of English medical terms of Greek origin that are still used in scientific language are *diabetes*, *emphysema*, *plasma*, *trauma*. Most Greek medical terms came into English preserving Latin spelling, e.g. *bronchus* (Gr. *bronchos*), *colon* (Gr. *kolon*). Many Greek terms were partially Englishized (Gr. *pleuritic* - Eng. *pleurisy*), or Englishized only adjectives and names of diseases, but never - the names of the human body parts (Gr. *derma* - Eng. *skin*, *dermal*, *dermatitis*).

After the conquest of Britain by the Roman Empire in the first half of the 1st century, Latin was recognized as the official language of the country, which gave impetus to the development of Celtic-Latin bilingualism in some social classes and even Celtic-Latin-Greek trilingualism in doctors' communication (Andrews, 1947). Since the Celtic language had no significant influence on Old English, that period in the development of English terminology can be described as a pre-Anglian period.

Britain was attacked by many conquerors after the Roman legionaries had left its territory (410). German troops gradually pushed the Celtic population into the highlands of modern Wales and Scotland. Along with official Latin language, Saxon dialect in the south and Anglian dialect in the north were used (Jackson, 2014).

By the beginning of the 6th century, European and island tribes had transformed into nations with their own languages. In Britain the main national language called Old English or Anglo-Saxon has emerged on the basis of many dialects. Although many spoken words of Anglo-Saxon origin are used in modern spoken English, a small number of basic anatomical terms have been preserved in medical English (*arm*, *finger*, *hair*, *head*, *liver*, *mouth*, etc) (Andrews, 1947).

Beginning from the end of the 8th century, Great Britain underwent frequent Viking invasions from Scandinavia, and from the second half of the 9th century, the Scandinavians had already colonized the northern and eastern parts of the country. In 878, the West-Saxon King Alfred the Great defeated the Scandinavian groups and saved the country from complete scandinavisation. Although King Alfred contributed to the spread of education by translating large numbers of Latin texts into Anglo-Saxon, the northern part of England did not escape the influence of Scandinavian languages. In colloquial English, a large number of common words of old Danish origin are in current use, but very few Scandinavian words have come in medical vocabulary (*leg*, *kidney*, *skin*, *skull*) (Andrews, 1947).

As for Greek medicine and the Greek language, after the fall of the Roman Empire, the Greek language gradually lost its influence on formation of medical terminology and was used for a short period of time in the eastern Roman Empire in Constantinople (Kronika mediciny, 1994).

A long period of feudalism came in medieval Europe associated with steady reduction of economic development, severe class discrimination and poor social and hygienic conditions for the majority of population. Migration of peoples and nations, unhealthy diet and poor hygiene caused high morbidity and mortality and the spread of infectious diseases. Due to its absolute power and rules, the new Catholic Church managed to slow the progress for over a thousand years (Jackson, 2014). Greek as the language of science has completely disappeared, and Latin has consolidated its position as the language of the church. The irony is that Latin had to disappear as a

language of everyday use in order to become a means of communication for physicians over the long centuries of the Middle Ages. English terms such as *mandible* (Gr. *mandibula*), *pulse* (Gr. *pulsus*), *pulp* (Gr. *pulpa*) come from Latin. As to other Latin terms, only adjective forms remained in use, e.g. *ren* / *renalis* (Eng. *kidney*) - *renal*; *cor* / *cordialis* (Eng. *heart*) - *cordial*; *cutis* / *cutaneous* (Eng. *skin*) - *cutaneous*.

Approximately in the 7th-8th centuries, classical Latin language stopped to be used as a means of everyday communication, and such "common" languages as Spanish, Italian, French, and others appeared on its basis. Until the time Latin had regained its position in Europe, the French language greatly influenced colloquial and scientific style of English. After the Norman conquest of England in 1066, the Norman and later the French standard of speech became dominant in Great Britain. On the basis of this standard Old English became the analytical Modern English with the fixed word order and the transfer of connections between words by prepositions. Some linguists consider 1066 to be the end of Anglo-Saxon language and the beginning of Middle English, which lasted until the end of the 15th century, when Elizabeth I ascended the throne in 1558. More than three centuries later, three communities with completely different languages coexisted in Britain: the ruling class which spoke the Norman language; liege men who spoke their native Anglo-Saxon, and scholars and priests who spoke Latin. Subsequent historical events - the Hundred Years' War between England and France (1337-1450) and the departure of England from the Roman Catholic Church during the reign of Henry VIII - led to the emergence of a new language formation - Middle English. As English language developed, French gradually disappeared (Dzuganova, 2002).

The revival of the English language lasted for several centuries. During this time, the Teutonic features gradually disappeared and were replaced by the Normand peculiarities. French words penetrated primarily into political, legal, religious, artistic and culinary terminology, and much less into medical one. But still, there are a small number of medical terms derived from French, such as *jaundice*, *poison*, *faint*, and several others. The French language rather played the role of a mediator for the transition of Latin and Roman words into the English language. Examples of such words are *male*, *female*, *migraine*, *nurse*, (Andrews, 1947). During that period, English literature developed rapidly. Thanks to the appearance of printing machines, publishing of books started in Britain. The works of Hippocrates and Galenos were translated to acquaint English medicine with the latest achievements. But it should be noted that in the Middle Ages, medicine seemed to be a craft but not a science. In fact, scientific treatises written in Latin were published only at the turn of the 16th and 17th centuries (Dzuganova, 2002). At that time, Arabic medicine was successfully developing being based on the principles of classical Greek medicine. However, European universities neglected it. The Arabic language enriched English medical terminology with such words as *alcohol*, *alkali*, *nitrate*, etc., which came in the English language through Latin and French.

The era of Modern English began during the reign of Henry VIII, who brought order to the country, established peace and contributed to the development of culture. At that time many translations of works by Greek and Latin scholars were made (Jackson, 2014). British people began to be proud of their language, which flourished in the works of William Shakespeare. At the end of the 15th century, Humanism and Renaissance period reached the territories of the British Isles, which contributed to the development of English language and literature, as well as gave the impetus to study of classic languages (Greek and Latin). Latin as well as Greek 100 years later,

became a rich source of terminology formation in rapidly developing natural sciences as physics, chemistry, biology, and medicine. In those days, the English language was enriched by such Latin words as *nucleus*, *mammal*, *syringe*, *thorax* and such assimilated Greek words that passed from Latin into French, and then into English, as *diet*, *rheumatic*, *spasm*, *surgeon* (Dzuganova, 2002).

In the 16th century, the English language continued to be enriched by means of classical languages. In the Middle Ages, every educated person spoke Latin. Due to this, many words and expressions from those languages passed into spoken English, e.g. *individual*, *nervous*, *rational*, *summary* (Andrews, 1947). It should be noted that Greek and Latin terminology still remains a reliable reserve for the scientific vocabulary formation. Humanism not only created the conditions for the spread of Latin, but also contributed to the effective formation of national languages. Since the time of Humanism and Renaissance, the history of international medical terminology had largely begun to coincide with the history of national terminology (Dzuganova, 2002).

In the 17th century, the bases of Modern English grammar were formed, they being extensively enriched with new lexical units. The scientific and technological revolution led to the appearance of many phenomena that required proper names. Rapid enrichment of Modern English vocabulary required its systematization and unification because of striking difference between spoken and written forms of English words, this being done by compiling dictionaries. With the beginning of Rationalism era (18th century), the need to systematize and regulate the norms of the English language increased. Thus, in English medical terminology, there exist terms having both Greek and Latin spelling and English spelling, e.g. *haemostasia* versus *haemostasis*, *thrombopenia* versus *thrombopeny*; the existence of a series of synonyms, for example, *embolia* - *emblus* - *embolism*; a significant number of synonyms, which are usually translations of Greek and Latin terms into English, e.g. *erythrocyte* versus *red blood cells*; *thrombocyte* versus *blood platelet*. Attempts to accurately distinguish a particular symptom forced to use long descriptive names, such as *human immunodeficiency virus*, *chronic fatigue syndrome*, which were later reduced to abbreviations and acronyms - *HIV*, *CFS*, etc.

During the 19th and 20th centuries, medicine was divided into many specialties and separate branches having led to the appearance of a large number of corresponding specific terms. If in the past the English medical language used mainly Greek and Latin terminology to build new terms, today the English language increasingly relies on its own resources. Due to political and economic impact of the United States in the whole world as well as its informational and technological power, it is English language that nowadays is used to present information globally, and it is English that influences the development and future of other languages. The worldwide use of English in educational and scientific spheres allows to compare it with Latin language in its golden age calling it *a lingua franca* in the era of information technology revolution.

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