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Developing an English Language Course for Serbian Doctors[1]

Abstract

Today, medical practitioners everywhere need to use Medical English (ME) at work or for study. To keep up-to-date with medical science, they need to be competent in ME and take appropriate courses. There has been no such course at the Faculty of Medicine, University of Belgrade, and the present paper provides suggestions for how to develop such a course, taking into account common and context-specific features. The objective of this article is hence to provide an outline of a ME course for Serbian doctors to increase the doctor's proficiency in written and spoken communication in the context of current medical practice and patient care. Furthermore, the aim of the article is for the Serbian doctors to be well trained to successfully perform their professional tasks in the English language of medicine.

Keywords: ME for the workplace, health communication, prospective ME course for Serbian MDs

1. Medical purposes

All languages are affected by the changes caused by globalization. Globalization includes science and technology and directly affects the communication and its means. Languages for specific purposes are also liable to change and innovation at all levels.

Medical language is based on Greek and Latin, but the influx of English terms has been noticed for the last two decades. Greco-Latin terms are widely accepted and used both in written texts and oral communication (Mićić 2013: in print; Coha/Valković 2013: in print). English has become the *lingua franca* (LF) of medicine and most scientific fields since 95% of medical papers come from English speaking countries (Pilegaard 2006: 7).

Today, medical practitioners need to use ME at work or for study, either in their own country or abroad. In modern medical practice, they are constantly exposed to ME when searching the literature or attending meetings.

Doctors may have various reasons for learning ME: e.g. to read journals and books, to speak to colleagues on professional visits, to make use of the expanding and increasingly important database available through the Internet, to participate in international congresses, to write up research for journal publication or to take post-graduate courses in the UK or the US, and to work in hospitals where English is the first language or the LF.

However, when faced with English-speaking patients in the consulting room, different vocabulary and language is required and culturally different values are represented also in terms of accuracy of the diagnosis in question. For example, in the Serbian medical context, the doctor uses medical jargon, such as 'Gospodine Petrovicu, nalazi pokazuju *da imate acidozu*/Mr Petrovic, the findings show '*that you've been suffering from acidosis*', whereas the patient actually has gastric cancer! Furthermore, Serbian doctors, in the majority of cases, do not break the bad news to the patient about his/her condition, especially if it is critical, out of different reasons, but mostly they

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think that they will upset the patient and make him/her too anxious, even suicidal. Instead, it is communicated to the patient's closest family or the closest of kin. There is a vital need for medical professional to communicate accurately with patients at their own level (GyŐrffy, 2008: 0) Testing hypotheses during the medical interview increases with clinical experience and frequently makes the interview more efficient, but it also runs the risk of reaching diagnostic conclusions too early (as in the examples above) in the exchange with patients. This leads to wrong diagnosis endangering the patient's life and chances of recovery.

Doctors may need to use English to speak to patients, for example to give an explanation of an illness to the mother of a sick boy or to give directions to a lost relative; they may also have to give a presentation to colleagues, e.g. at the American Society of Nephrology, etc. So, they need to have good communication skills in the English language, both oral and written (McFarland 2009: 173).

Courses for doctors can be narrow or wide angle, depending partly on the length of time and intensity of the course, and on the purposes and interests of the learners. Courses for practicing professionals usually consist mainly of practice of target activities (case work, writing up research, etc.). English medical terminology is usually known, but not the pronunciation. Courses often include genre-based work on typical collocations (Mićić 2006: 135; Мићић 2009: 235-236), as well as skills development.[2]

2. Workplace communication

Away from education, the workplace is probably the major setting for necessary English communication. There have been many studies of workplace discourse and they have contributed to our understanding of institutional discourse and communicative relationships in the workplace.[3] There are, certainly, a number of lexical items and formulae which may recur in job-specific language communication (for example, *hurt* at the hospital), but fragmentary phrase-book elements of this sort equip no-one for unfolding dynamic language interaction. There are good arguments for job/setting simulation in the teaching/learning units. In any job, there are constants and variables (Candlin et al.1976: 245-246). The problem for applied linguists who work in these settings is their tendency to underestimate the complexity of working with non-language professionals while avoiding being seen as both patronising and as irrelevant outsiders. There should be interaction between applied linguists and field professionals, the ambition being to achieve the integration of theory with practice (Benfield 2007: 517; Mićić 2011: 540-541)[4].

Those applied linguists who study communication in the workplace have a dual purpose: to extend our knowledge of language genre so as to add to the theoretical base of language variety; and to provide input to the design of language-teaching materials for use in training courses on workplace communication for migrants or to provide advice for administrators about how to minimise miscommunication (Davies 2008: 23).

Unless English-speaking but non-native-speakers-of-English laymen as well as migrant medical professionals have sufficient command of ME to read the medical literature, it is almost impossible to keep up to date with medical advances (Ribes/Ros 2006: 4-5). Typically, it is the mi-

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2 For health communication, see Frankel, R. M. et al. 2003: The Future of the Biopsychosocial Approach. In Frankel, R. M./Quill, T. E./McDaniel, S. H. (eds.), *The Biopsychosocial Approach: Past, Present, Future.* The University of Rochester Press. Also, Sarangi, S. 2004: Towards a communicative mentality in medical and healthcare practice. Editorial. In *Communication & Medicine* 1(1), 1-11.

3 For health communication, see Frankel, R. M. et al. 2003: The Future of the Biopsychosocial Approach. In Frankel, R. M./Quill, T. E./McDaniel; S. H. (eds.), *The Biopsychosocial Approach: Past, Present, Future*. The University of Rochester Press. Also, Sarangi, S. 2004: Towards a communicative mentality in medical and healthcare practice. Editorial. In *Communication & Medicine* 1(1), 1-11.

4 For the medical discourse analysis, see Gotti, M./Meyer, F. S. (eds.): *Advances in Medical Discourse Analysis: Oral and Written Contexts*. Vol. 45. Peter Lang.

grant for whom communication at work presents at the least misunderstandings and hostility and at the worst loss of job (or failure to obtain one).

3. Medical English courses in Serbia

At our Faculty, ME is taught at the undergraduate level (as compulsory in the first two years and elective in the third, fourth and fifth years) (Micic 2005: 4; Micic 2007: 10). There are separate English for Medical Academic Purposes (EMAP) courses in undergraduate medical education for foreigners.[5] However, there are no courses for Serbian doctors. Nevertheless, when Serbian medical professionals take residency or advanced training courses, they are required to submit a certificate showing mastery of the English language. It is general, not medical English proficiency that they have. Thus, there is a need to develop an appropriate course for doctors.

Medical graduates have typically been educated in their native language, Serbian, and have little experience using English outside of their English class.[6] Although they may be familiar with medical terminology and have excellent reading skills gained from English language medical journals, they may not be accustomed to using English in a medical or social context,[7] such as presenting a case to a faculty physician, explaining a procedure to a patient or listening to a lecture in English or medically educated audience (Mićić 2012: 601-602).

3.1. English for doctors course design

Awareness of the key role of physician-patient communication has led to an increase in communication skills training courses in medical schools and residency training curricula throughout the US. The ESP community has a rare opportunity to contribute to the improvement of physician-patient communication through instruction in language and culture in US medical settings (Eggly 2002: 105).

The consultation may be seen in terms of four operational phases, namely, 'information', 'examination', 'diagnosis' and 'treatment/prognosis' (Candlin *et al* 1976: 254).[8] Interviewing skills imply the three-function model of the medical interview, which defines the main functions of the interview as: (a) building the relationship, (b) assessing the patient's problems, and (c) managing the patient's problems (Cole and Bird 2000: 7). Function (a): a strong rapport between the doctor and the patient is the foundation on which the interview is based. Function (b): greeting the patient, using attentive nonverbal behaviour, organising and setting priorities for the interview, balancing open- and closed-ended questions and listening actively. Function (c): Physicians frequently have difficulty explaining medical conditions in lay terms, especially if patients in their home countries are unaccustomed to requesting detailed explanations.[9] This difficulty can be exacerbated by lack of familiarity with lay medical terms or with social and cultural issues that may interfere with the patient's ability to adhere to a treatment plan. Thus, doctors should be introduced to the structure of the office visit and prescription writing and charting. They may not be familiar with trade names for drugs, referring to them instead by their pharmaceutical names. Doctors need specific instructions on how to document their patient interactions.

It appears that the majority of consultations with ambulatory patients are of a fairly uniform length in terms of task-specific language functions (Mićić 2011: 677-678). This uniformity can

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5 See the webpages http://www.britishcouncil.org/serbia-elta-newsletter-december-2007 and http://www.asb.dk/lsp2009/abstracts-theroleof L1inenglishforspecific-academic-purposes-instruction.

6 See Footnote 2.

7 See Heritage, J./Maynard, D. W. (eds.) 2006: *Communication in Medical Care. Interaction between primary care physicians and patients.*

8 See Frankel et al. 2003: *The four habits approach to effective clinical communication.* Clinical Patient Communication.

9 See Isik Tas, E. 2005: English for Medical Academic Purposes. Beograd: Press Express, by Dr. Sofija Micic. *ESP SIG Newsletter,* December 2005, 32-33.

usefully be reflected in ME teaching units.[10] The work of a doctor in a casualty setting involves a limited set of 'work cycles' within which there will be variation in detail. In interviewing an ambulatory patient, the doctor proceeds from information-gathering to diagnosing to prescribing. But within the phases themselves, there is variation. The ESP course should aim to reflect this interplay of constants and variables in its simulation (Candlin et al. 1976: 246; Eggly 2002: 110). Thus, in an important series of research and conceptual papers in the 1970s and 1980s, George L. Engel expanded the centuries old and very successful biomedical model by demonstrating the importance of psychological and social factors in illness and disease as well as how the factors in question affect care processes and outcomes. While patients continue to be understood partly in biological terms, the biopsychosocial (BPS) model stresses the importance of the medical interview in diagnosis, treatment and therapy by integrating the psychosocial dimensions of the patient and their experience of illness (Engel 1977, 1980: 129-136; 535-544). It was shortly after Engel described the BPS model, Joseph Levenstein, Ian McWhinney and colleagues proposed the general concept that clinicians become ''patient-centred'' in their interviewing approach (McWhinney 1989: 25-42; Levenstein et al. 1989, 107-120). Wide dissemination of patient-centred practices was promoted globally. Before perusing the literature until 2001, when the Institute of Medicine (USA) identified patient-centred care as one of six domains of quality, thereby establishing the concept as a key to patient safety and effective, efficient care, it is worth mentioning Robert C. Smith's work in 1998 and 2000. The Institute of Michigan State University (MSU) group, under the direction of Robert C. Smith, developed a behaviourally defined, replicable patient-centred method based on empirical evidence, literature review, consultations with others, and their own experiences (Smith et al. 2006). However, despite all the advances in medical profession and technology, it is the medical interview that remains the physicians' most important diagnostic and therapeutic tool. In short, the patient-centred method though challenging, unlike the previously used the clinician-centred one, is closed-ended, consisting of clinician-directed questions to diagnosis and treatment of diseases (implying clinical reasoning).

In carrying out various phases of his task, the doctor makes use of different language skills in different serial patterns. At the same time, his productive skills involve him in different language functions, and these, too, will be serially patterned.

Swales' theory (1990) of professional discourse communities and research article (RA) moves represented a breakthrough in analysing professional genres. Thus, characteristics of the doctor's language use will vary according to his interlocutor. The variation can be seen along sociolinguistic dimensions of status and role, but it is also, of course, determined by the relation of the interlocutor to the task. Thus, a doctor's language use reflects his dominant role when he addresses the patient, but his dominated role when he is with a senior clinician; and in an obvious sense, the substance of the doctor's language will vary in focus and technicality between, say his communication with a radiographer (focus: treatment/prognosis, technicality: low). A third variation is the extent to which the doctor's language reflects more cognitive or more affective functions (the cognitive is evident in talking to a colleague about medical matters, while the doctor's use of language to reassure his anxious patient is affective) (Mićić 2012: 600).

Particular demands are made on the doctor's linguistic competence in respect of trans-mediation and recoding skills. He has to be able to express the same propositional content in different language media (oral, written, etc.) (Swales/Feak 2007: 3) and in different 'technical' and 'lay' codes (Candlin et al. 1976: 265). Variations in language used by patients and slang can be confusing to doctors who speak English as a second language. At the same time, the medical jargon used by physicians can intimidate or confuse patients. For example, patients refer to *the runs* (diarrhoea) or *falling out* (fainting) or *shingles* for *herpes zoster* (Eggly 2002: 109; Мићић 2009: 236). Relating to nurses and other staff is also important.[11]

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10 See Isik Tas, E. 2005: English for Medical Academic Purposes. Beograd: Press Express, by Dr. Sofija Micic. *ESP SIG Newsletter,* December 2005, 32-33..

11 See Candlin, S. 2006: Constructing Knowledge, Understanding and Meaning Between Patients and Nurses. In

3.2. Cultural values

Cultural values influence medical issues, such as the disclosure of diagnostic information, physician-patient relationships, and willingness to adhere to medical treatments. Dissimilarities in ethnic background can result in differing explanations of illness and disease and lead to conflict in a medical setting. Students/doctors are encouraged to consider religious and cultural issues that might give insight into reasons for the conflict and ways to handle sensitive communication challenges (Peyer 1995: 3).

Physicians naturally feel uncomfortable providing news of a diagnosis such as a terminal or stigmatized disease. In many countries (such as the countries of the western Balkans) and ethnic groups, this information is communicated to the patient's family. In fact, giving bad news to a patient may be considered unethical because it is perceived to hasten the illness process. The curriculum implies that the Serbian doctors utilize the appropriate language skills for such a highly emotional interaction: choosing an appropriate time and place to talk with the patient, giving a basic diagnosis using nontechnical language, eliciting and responding to patients' emotions regarding their diagnosis, listening actively, offering hope, and providing only necessary details rather than overloading the patient with extraneous technical information (Eggly 2002: 111).

Courses for doctors can be narrow or wide angle, depending partly on the length of time and intensity of the course, and on the purposes and interests of the learners. Courses for practising professionals usually consist mainly of practice of target activities (case work, writing up research, etc.). English medical terminology is usually known, but not the pronunciation. Courses often include genre-based work on typical collocations (Mićić 2006: 135; Мићић 2009: 235-236), as well as skills development.[12]

4. Medical English classroom

In the medical field, it is possible to bring the outside world into the classroom and create activities based on authentic situations, using language which doctors and other health professionals actually use for real purposes.

Many doctors find it interesting to discuss a case study, and this offers plenty of scope for authentic problem-solving tasks. It is important to choose a case which is not too difficult to diagnose, not too obvious, and for this choice it is best to obtain advice from a medical expert first (Mićić 2009: 677). A class with sufficient technical expertise can hold a case conference to discuss for and against possible solutions to the case, as doctors do in real life (Mićić 2009: 678).

The case conference is a routine procedure in hospitals almost anywhere in the world. It provides an opportunity for hospital doctors to meet together and discuss recent or current problematic and/or interesting cases. Often the various interested specialists contribute to the discussion to build a more comprehensive picture of the clinical problem. Very frequently, the case conference gives the young doctors in training a chance to test their diagnostic skills, under the supervision and guidance of more experienced senior doctors. Basically, what typically happens is that a case that is posing problems of diagnosis, management, or treatment is presented by a doctor in charge of, or involved in, the case. The presenter gives the history in detail and the patient may then be brought in to answer any questions the group has. Finally, the problem is discussed by the group. Clearly, it is not possible to recreate all aspects a case conference in the classroom, but it is perfectly possible to simulate some of the most important parts of the situation to promote meaningful clinical problem solving. Obviously, we cannot provide real patients, but we can provide problems that are 'real' in the sense that they are drawn from authentic medical sources (Alwright/Alwright 1977: 60-61).

Gotti, M./Meyer, F. S. (eds.), *Advances in Medical Discourse Analysis: Oral and Written Contexts*, Vol. 45. Peter Lang, 65-86.

12 See Micic's textbook *English for Medical Academic Purposes,* 3rd impression, 2009. Belgrade: State Publisher of Textbooks.

We must distinguish between the way doctors communicate with patients as opposed to peer-peer communitaction. In one register we may find expressions such as 'I have been feeling out of sorts' and in the other 'The patient complained of fatigue and general malaise'. Doctors practice giving clear explanations in lay terms and checking to see if their patients understand. Doctors' enhanced readability in written medium is of crucial importance (Pilegaard 2013: in print). Role plays give them the opportunity to practice explaining a variety of diagnoses and negotiating treatment plans (Mićić 2009: 680).

The doctor-patient dialogue can lead to many kinds of transfer activities, such as writing case notes on the case or filling in forms, writing a letter of reference, or presenting the case orally to a superior doctor at the patient's bedside. Other tasks performed in real life by health professionals are telephoning a hospital department or colleague, asking for certain tests to be carried out, reading pathological lab reports and discharge summaries, writing up a case report for publication in a journal and so on. The doctor-patient interview is a structured communicative event which involves the use of several different tenses. The doctor needs to know some suitable opening phrases to greet the patient and put him at ease.[13] We should teach structures which are characteristic of essentially medical matters: reconciling general language aspects of the language with specific needs of the students. The link between form and content is more motivating. Speaking practice should be both controlled and free (Webber 1995: 67-68).

4.1. English for Serbian Doctors Course Outline

The course of English for doctors is designed to improve English oral and written communication skills required to function successfully in the workplace. Specialized terminology and communications skills in context are presented and students are provided with up-to-date specialized textbooks and authentic materials taken from the medical profession.[14] There is a balance between accuracy and fluency depending on the goal and scope of the communicative activity. The syllabus would utilize a student-centred approach to language instruction. As such, student knowledge and performance are given centre stage (Mićić 2011: 684). It focuses on:

1. communication skills
2. reading comprehension
3. writing and grammar and
4. medical terminology.

1. Communication skills would involve:
   - doctor-patient simulated interaction
   - listening to audio and video recorded medical lectures and taking notes
   - case reporting and case discussion notes
   - technical-lay code switching
   - preparation for presentation

2. Reading comprehension would include:
   - Summarizing medical journal articles
   - Discussion about medical and popular medical topics
   - Reading for specific information

3. Writing and grammar would involve:
   - Writing History of Illness Form and Case Report

13 See Micic's textbook *English for Medical Academic Purposes,* 3rd impression, 2009. Belgrade: State Publisher of Textbooks.

14 Micic, S. 2013: English for Medical Purposes. Belgrade University, Faculty of Medicine, LIBRI MEDICI.l Also, inspired by TEMP course at IALS, Edinburgh, summer 2000 and personal correspondence with O. Almeniei.

- Forming open and closed-ended questions
- Use of appropriate tenses and sentence structure in medical documents

4. Medical terminology would include:

   - Learning specialized terminology in context
   - Use of technical, sub-technical and lay terms
   - Analysis of collocations and word associations
   - Pronunciation of medical terms
   - Discussion of common medical abbreviations
   - Use of Internet and electronic software for enriching knowledge of medical terms.[15]

The course would last one academic term and would contain 30 classes (15 lectures and 15 practicalities). It would be assessed both as a written and oral exam. One more example of future medical education targets making Chinese surgeons more facile in English by Benfield, J., MD as the following:

- Medical English instruction programs should be subject-oriented and continuous
- Medical specialists (recently retired) and language professionals should teach together (also Mićić 2009: 677)
- Implementation should be via professional language and medical organizations
- Tests to evaluate medical subject-oriented language proficiency should be improved
- Adequate funding sources should be pursued (Benfield 2007:517).[16]

5. Concluding remarks

Today, medical practitioners need to use ME at work or for study, either in their own country or abroad. In modern medical practice, they are constantly exposed to ME when searching the literature or attending meetings. Unless they are sufficiently competent in using this type of English, it is almost impossible to keep up to date with medical advances

Thus, at our Faculty there is a need to develop an appropriately organized course for Serbian MDs with general English proficiency to master ME. Commonly, existing courses for practicing professionals usually consist of practice of target activities (taking history, examination, casework, writing up research) and include genre-base work on typical collocations, as well as skills development. More specifically, the fact that many terms are written similarly and pronounced differently would make pronunciation practice relevant in our course. Misnomers and false friends would be analysed. We feel that grammar has a remedial role and only grammar in use would be covered. To sum up, our course would offer doctors the competence and ability to function in English in a medical environment.

6. References

Alwright, J./Alwright, R. 1977: An approach to the teaching of medical English. In Holden, S. (ed.), *English for Specific Purposes.* MacMillan Publishers LTD, 58-62.

Benfield, J. R. 2007: English for Chinese Cardiothoracic Surgeons. In *European Journal of Cardiothoracic Surgery,* 25. Elsevier, 507-519.

Candlin, C. N. et al. 1976: Doctors in Casualty: Applying Communicative Competence to Components of Specialist Course Design. In *IRAL.* Heidelberg: Julius Groos Verlag, 245-273.

15 For the use of technologies in learning foreign languages, see Micic, S.: Creating a Bilingual Medical Electronic Dictionary. Caiet de Semiotica, Timisoara: Editura Universitatii de Vest, Nr. 18, 77-86; also, Murray, D.E.: Technologies for Second Language Literacy. ARAL, Vol. 25, 2005, 188-201.

16 For future of medical education, see Benfield, J. R. 2007: English for Chinese Cardiothoracic Surgeons. In *European Journal of Cardiothoracic Surgery,* 25. Elsevier, 507-519.

Cole S. A./Bird, J. 2000: *The Medical Interview. The Three-Function Approach.* Second Edition. Mosby.

Davies, A. 2008: *An Introduction to Applied Linguistics. From practice to theory.* Second Ed. Edinburg Textbooks in Applied Linguistics. Series Eds. Davies A./Mitchell, K.

Eggly, S. 2002: An ESP Program for International Medical Graduates in Residency. In Burton, J. (ed.), *Case Studies in TESOL Practice Series.* Chapter 7, 105-115.

Engel, G. L. 1977: The need for a new medical model: a challenge for biomedicine. In *Science,* 196, 129-136.

Engel, G. L. 1980: The clinical application of the biopsychosocial model. In *Am. J. Psychiatry,* 137, 535-544.

GyŐrffy, M. 2008: *English for Doctors.* 2nd Ed. Pécs, SiralÝ: IDIÓMA.

Levenstein, J. H. et al. 1989: Patient centered clinical interviewing. In Stewart, M./Roter, D. (eds.), *Communicating with Medical Patients.* London: Sage Publications, 107-120.

McFarland, J. 2009: Teaching English to the medical profession. Developing communication skills and bringing humanities to medicine. In *Panace,* Vol. 10, no. 30. Segundo semestre.

McWhinney, I. 1989: The need for a transformed clinical method . In Stewart, M./Roter, D. (eds.), *Communicating with Medical Patients.* London: Sage Publications, 25-42.

Mićić, S. 2005: Reforms in English for Medical Academic Purposes, Instruction in Belgrade. *ESP SIG Newsletter,* December 2005, 4-7.

Mićić, S. 2006: Collocations in Teaching English for Specific Academic Purposes. In *Philological Review* XXXIII, 2, 131-140.

Mićić, S. 2007: Teaching medical writing in an integrated skills approach in Belgrade. In *The Write Stuff,* Vol. 16, No. 1, 2007, 10-11.

Mićić, S. 2009: Problem-based Approach to Medical English Instruction. In *International Conference. English Language and Literature Studies: Structures across Cultures (ELLSSAC) Proceedings,* Vol. 1, 675-686.

Мићић, С. 2009: *Студије о језику медицине у енглеском и српском.* Београд: Београдска књига.

Mićić, S. 2011: Problem-based Approach to Teaching EMAP. *International Conference. English Language and Literature Studies: Identity (ELLSIIR) Proceedings,* Vol. 1, 2011, 531-542.

Mićić, S. 2012: Professional Communication between English-speaking and Serbian doctors. In Mišić Ilić, B./Lopičić, Vesna (eds.), *Language, Literature, Communication (LLCOM) Proceedings Language Research.* Niš: Niš University, Faculty of Philoslophy, 596-604.

Mićić, S. 2013: Languages of Medicine – Present and Future. *JAHR. ANNUAL. Proceedings from the International Conference* The Language of Medicine – from its Genesis to the Culture and Ethics of Communication, Vol. 4, No. 7. MEDRI, Rijeka: Department of Social Sciences and Medical Humanities, 217-233.

Peyer, L. 2001: Medicine & Culture. In Humphrey T./Leitman, R. (eds.), *Health Care News, Harris Interactive,* Health Care Research. Health Care News. *Health Care Research.* Vol. 1, Issue 34, Dec. 20, 1-5.

Pilegaard, M. 2006: Medical Writing, Revising and Editing. In Keith Brown (ed.), *Encyclopedia of Language and Linguistics*, 742-745.

Ribes R./Ros, P. R. 2006: *Medical English.* Springer.

Smith, R. C. et al. 2006: Primary care clinicians treat patients with medically unexplained symptoms – a randomized controlled trial. In *J. Gen. Int. Med.,* 21, 671-677.

Swales, J. M. 2004: *Research Genres: Explorations and Applicataions.* CUP.

Swales, J. M./Feak, C. B. 2007: *Academic Writing for Graduate Students. Essential Tasks and Skills.* Second Edition.

Webber, P. 1995: Speaking practice in the medical English classroom: bridging the gap between medical English and the everyday world. *In IRAL,* 33, 1, 64-70.

APPENDIX – Mićić, S. 2013: *English for Medical Purposes.* 1st ed, University of Belgrade: Faculty of Medicine: LIBRI MEDICI

UNIT 31: Diseases of the Cardiovascular System

Using new words and phrases

A. Match each medical word or phrase with the common word or phrase that means the same.

1. anticoagulant	_____ high blood pressure
2. arrest	_____ heart attack
3. cardiac infarction	_____ stoppage
4. hypertension	_____ blood thinner
5. thrombus	_____ clot

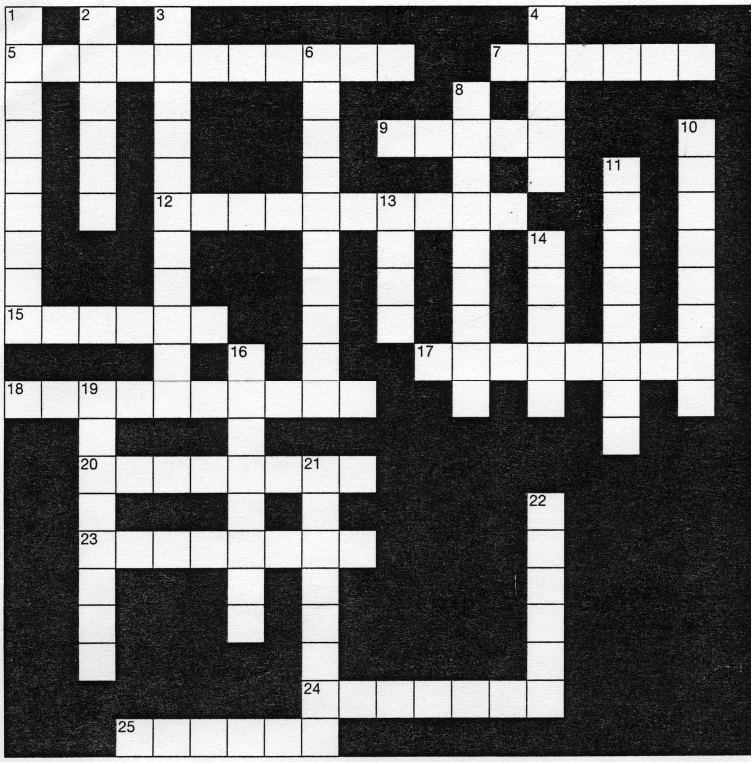
A. Fill in the crossword taken from 'Test Your Professional English – Medical' by Alison Pohl (Penguin English, 2002).

Across

5 Irregularities in the heartbeat.
7 Turbulent blood flow through a defective valve makes this sound.
9 A healthy heart has 60-100 of these a minute.
12 Coronary heart disease is due to _____ supply of blood to the heart.
15 The surgeon does this when he joins a piece of vein to the heart.
17 Atherosclerosis is a build up of fatty _____.
18 A completely new heart!
20 Insufficient _____ and smoking can contribute to heart disease.
23 A gripping angina chest pain sometimes _____ down the arms.
24 Air or liquid are used to _____ the balloon in angioplasty.
25 A section of the patient's saphenous vein is normally used in _____ surgery.

Down

1 The opposite of widening.
2 Complete stoppage of the heart.
3 Inflammation of the heart muscle.
4 Tachycardia is a rapid _____.
6 Death of a muscle due to lack of blood.
8 Battery-operated device to make the heart beat normally.
10 _____ veins are caused by defective valves in deep lower leg.
11 Angina pectoris chest pains are usually brought on by _____.
13 Platelets and blood cells which collect on one site will cause this.
14 The person who provides a replacement heart.
16 One of these in a coronary artery will cause the muscle it supplies to die.
19 Abnormal swelling in a weakened arterial wall.
21 A condition in which a valve outlet is too narrow.
22 It thickens arterial walls and narrows the artery.



Dialogue: (Mr. Roberts has been admitted to hospital after a heart attack.)

DOCTOR A: Right, John. Stick his X-ray up there, will you.

DOCTOR B: Hey look at that. He's in severe cardiac failure.

DOCTOR A: What do you mean by that?

DOCTOR B: Well, his heart is enlarged and there's a lot of fluid at the base of his lungs, here. And there's marked congestion of his hilar blood vessels.

DOCTOR A: But he's not very breathless. How can you be sure of that?

DOCTOR B: It fits in with the physical signs.

DOCTOR A: Okay, we'd better give him something for it straight away, but it puts him in a poor prognostic group. Most of the patients I've seen like this after infarcts don't survive more than six months.

DOCTOR B: Well, he might be the exception.

DOCTOR A: There's nothing that I can see to support that. As his ECG shows, he's had a very big infarct, and if he develops any rhythm disturbance, he'll have to go to the intensive care unit.

DOCTOR B: What if he doesn't respond to the treatment for his heart failure?

DOCTOR A: Should that happen, he'll have to go onto an external cardiac support system.

DOCTOR B: That's bad news, isn't it?

DOCTOR A: About 10% of these cases do get better, provided that they respond quickly to this last line of treatment.

DOCTOR B: What shall I tell his wife?

DOCTOR A: You'd better tell her the truth. Tell her that he's very seriously ill and that his condition is critical. Tell her we're going to keep a very close eye on him for the next couple of days.

(Taken from: 'Medically Speaking, English for the Medical Profession' by P.L.Sandler, BBC, 1989)

Exercises:

1. Choose from these words to complete the statements which follow:

   ECG, base, infarct, enlarged, rhythm, marked, intensive, hilar.
   'The patient's heart is ..... and there is fluid at the ..... of his lungs. There is also ..... congestion of his blood vessels.'

   'The patient's ..... shows that he has had an ....., and from this it is clear that if he develops ..... disturbance he will have to go to the ..... care unit.'

2. Which of the two doctors seems to be the more experienced? Give reasons for your answer.
3. What is the initial treatment for this patient likely to be? What is likely to happen if he fails to respond to it?

Language Study

1. Follow this example to make conditional questions in the exercise below.

   I (suffer) side effects from the pill?
   What if I **suffer** side effects from the pill? or
   What will happen if I **suffer** .....?

a. the patient's cancer (respond) to radiotherapy?
b. my husband (refuse) to let me have the baby?
c. the migraine (continue) after I've taken the pain-killers?
d. we (discover) that the patient's bruises is self-induced?

2. Follow this example to make conditional answers to previously asked conditional questions in the exercise below.

   What if I suffer side effects from the pill? (put you on a lower dosage)
   Should you **suffer** side effects from the pill, **I'll put** you on a lower dosage.

a. (change the treatment)
b. (have a word in private with him)
c. (report to the doctor)
d. (refer him to a psychiatrist)

If he **fails** to respond (strong possibility). **If** he **should fail** to...(less strong)