## English for Medical Purposes: Teaching an Intensive English Course to Third-Year Medical Students

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In this article, we discuss the planning, creation, and execution of a four-day intensive course held in September 2012. Our purpose in writing the article is to examine the process of setting up a new course, evaluate its strengths and weaknesses, and to consider the possibility for its improvement and the development of materials that link to medical subjects.

This research can be viewed as a case study involving the development of a course by four experienced teachers (the authors), working with the support of senior colleagues. While texts on theory in English language teaching often stress a very meticulous staging of course development in which the course-builder undertakes a careful needs analysis, and considers materials and teaching approaches appropriate for a course, the reality of course development can often be much more fluid and dynamic. This is particularly relevant to the course described in this article, in which a group of experienced colleagues operated as a team. In such cases, members work with a large number of tacit understandings, trusting in each others' expertise, and making decisions based on classroom experience and a sense of what has worked in similar circumstances. One way of capturing this more fluid form of decision-making is to identify the key decisions that were made through the eventual structure and organization of the course, and to reflect on the process. The success or failure of a course is often down to a nexus of interacting factors which cannot be disentangled from each other and scientifically tested, but the process of communicating and reflecting on the course is a valuable way of critically analyzing it and aiding in building on it.

#### LITERATURE REVIEW

The teaching of English is usually defined under a variety of terms which have proliferated over the years. In this section we review those terms and opt for the most appropriate working definitions. As Hutchison and Waters (1987) note, English language teaching was initially associated with literature, but as English developed into an international language there was an increasing need for it to be linked to other fields. Various authors (Hutchison and Waters, 1987; Jordan, 1997; Dudley-Evans and St John, 1998) have analyzed and categorized the terms associated with the English that is learned for particular purposes in contrast to English for general purposes. The development of courses for particular purposes has led to a bewildering number of acronyms:

EAP, EBP, EEP, EGAP, EGBP, ELP, EMP, EOP, ESP, ESAP, ESBP, EST, EVP (Dudley-Evans and St John, 1998). Usually the overarching term is English for Specific Purposes (ESP), which then subdivides into English for Academic Purposes (EAP) and English for Vocational Purposes (EVP). English for Academic Purposes further subdivides into English for General Academic Purposes, and English for Specific Academic Purposes. In relation to the medical field, the overarching term used is EMP (English for Medical Purposes). These terms need to be considered in the context of the course under study.

In the case of the course examined in this study, it was a medical English course for third-year students at the university. Consequently, it falls under the category of English for Medical Purposes. However, within EMP a division is often made between English for Vocational Purposes (EVP), relating to working professionals, and English for Specific Academic Purposes (ESAP), relating mainly to university study. A question that arises is how easily such a distinction can be sustained – medical students differ from most other students in that they know what their future work will be. While a literature undergraduate or an engineering undergraduate may have a working career unrelated to their university studies, the overwhelming majority of medical students will become medical practitioners. In this sense, the English that they learn can be linked much more strongly to their future working lives: The English language needs of practicing doctors can be used as a factor in the development of university English courses. In addition, where certain kinds of professional discourse, such as doctor-patient dialogues relating to EVP, can help in the creation of materials that encourage the use of the learning of the target language, then they may have pedagogic value, even if they do not connect directly to students' own medical learning experiences.

A further consideration is the distinction between English for General Academic Purposes (EGAP) and English for Specific Academic Purposes (ESAP). EGAP involves the development of skills for studying academic subjects in English. It is most strongly associated with students undertaking preparatory studies for courses taught through the medium of English. In contrast, the course under discussion in this paper is one in which the medium of instruction for the learning of medicine is Japanese. English is seen as an important part of medical students' education, but there is a clear difference between a student who has to learn a variety of English skills so that he/she can learn a core subject through the medium of English, often in an English-speaking environment, and a student who has to learn English as an extension of the skills he/she has in relation to a core subject taught in Japanese in a Japanese-speaking environment. In such circumstances, there may be some key areas that are shared between EGAP and ESAP such as summarizing an article, but others that are irrelevant, such as English for library use, if the students' library uses the Japanese language.

Given the above considerations, the key term used in this article is English for Medical Purposes because it considers medicine as a whole and allows consideration of the future needs of doctors as well as the current needs of medical undergraduates.

#### INITIAL PLANNING FOR THE COURSE

The course was developed in response to a request from Hiroshima University's Faculty of Medicine. From the perspective of the Institute for Foreign Language Research and Education, it was a different project from most others undertaken because, rather than involving general English, it involved a branch of English for Specific Purposes. The Institute for Foreign Language Research and Education is involved in the teaching of foreign languages to members of the university at large, and so for its English-teaching staff, its major role is in teaching and research for general education courses which span the various faculties of the university, and this usually means a general English approach.

In the case of the request from the medical faculty, there was the opportunity to explore the possibility of building an EMP course for a particular group: third-year medical students. This also differed from many of the English courses taught on the university's medical campus because, in the general English classes, courses are taught to groups of students that come from a variety of faculties, such as nursing, physical therapy, dentistry, dental engineering, and pharmacy. In contrast, the intensive course would involve only those training to be doctors. A major advantage of this was that all the students would share a great deal of background knowledge. It was also assumed that, due to the intense competitiveness of entry into the medical faculty, the variations in English ability would be fewer than with a broader group. Furthermore, as the course was requested and backed by the most senior members of the medical faculty, this would have a motivating effect on how it was perceived by students who are often under considerable study pressure in relation to their medical studies.

A meeting was held in June between the dean of the medical faculty, an English specialist working on the medical campus, the head of the Institute, and two of the English teaching staff of the Institute to make an initial plan. This discussion led to the establishment of personnel requirements, course dates, and broad areas to be taught<sup>1)</sup>.

As the course involved an entire year of medical students, who would be involved in classes where the productive skills of writing and speaking would be emphasized, the course would require a teaching team of four, so that the class size would be less than 30 students.

A key issue was when to hold the course, with the options being an additional course that would run through a semester, or a short intensive course being held late in the summer vacation. The latter option was chosen for several reasons: This was a new experimental course involving specialized English, and consequently none of the teachers involved had undertaken it before; it would need preparation and communication between the members of the teaching team in a period where there was time to focus and prepare; it was also likely to be stressful, as only one teacher had a background in a medically related subject (pharmacology), and in terms of medical content, medical students would have far more knowledge than the teachers themselves. Working on an intensive course would give the teachers a chance to coordinate, discuss the progress of classes, and cooperate on key aspects of the course such as student evaluation at a quiet time of the academic year.

Discussion of the content areas of the course led to a number of possible areas emerging.

The broad aims from an initial discussion were that medical students would eventually need to be able to write articles and abstracts in English, they would need to be able to talk to patients, and they would need to be able to discuss medical issues. Consequently, the course was initially divided into three major sections: *abstract writing, medical conversations* (focusing on doctorpatient dialogues), and *medical discussions*. The third-year students would be divided into four groups with each group receiving twelve classes of instruction. Each teacher would prepare three lessons of material, which would be taught to the four groups. The students would be evaluated at the end of the class. It was also decided that a key component of the course would be the compilation of a list of medical terms to aid students. This list would serve as a reference document of manageable size, and would entail creating a small corpus of relevant medical texts.

#### DETAILED PLANNING AND ADJUSTMENTS

Having established the length of course, dates, and teaching staff, more detailed planning was made later in the summer, involving the creation of materials and a test. A key aspect of planning was how to make the course reasonably cohesive. Unlike most other English language courses, this would be taught by a team of four teachers, and there were a variety of risks that needed to be overcome. One risk was excessive duplication, where teachers would, unknowingly, teach the same thing. The other was atomization, where each teacher would teach so independently that there would be no connection between the parts of the course.

Duplication was not considered as an issue between the written and spoken parts of the course, and could be considered a benefit, where students might use the same terms in written and spoken discourse. However, the risk was high in relation to the three teachers involved in *medical conversations* and *medical discussions*. Half the course was given over to *medical conversations*, and this was to be taught by two members of the team. *Medical conversations* had been defined as mainly doctor-patient dialogues in the initial meeting. From a review and discussion of materials in a range of published textbooks (see references), most conversation activities were focused on this area. A provisional allocation of class topics was made on the basis of a patient going through the stages of being treated. One teacher would focus on taking a medical history, involving recording basic information and asking about symptoms in relation to diseases, the other would focus on medical examinations and diagnoses. It was also agreed that there would be a focus on lighter medically-related topics, such as diet, in the last classes.

There was also the risk of duplication between *medical conversations* and *medical discussions*. The general idea lying behind the initial distinction was doctor-patient dialogue versus discussions between medical practitioners. However, this could mean that similar topics would be discussed in the third person rather than the first and second person. A medical conversation could contain the following dialogue:

A: Have you been feeling dizzy?

B: Yes, particularly when I get up suddenly.

A: And have you been coughing?

B: Yes, I cough during the day and it gets worse in the evening.

However, a medical discussion between medical staff might be very similar:

A: Has the patient been feeling dizzy?

B: Yes, he has dizzy spells when he gets up suddenly.

A: And has he been coughing?

B: Yes, he coughs during the day and it gets worse in the evening.

This danger was solved when the focus of the *medical discussions* became medical ethics. Students would study a professional discussion and then build up to a discussion on a controversial medical issue.

In terms of atomization, it was possible that there might be no connection between each part of the course. While connections did not need to be excessive, it would help if some language and topics could be recycled. An initial idea in the planning of the course had been to explore the possibility of keeping it in one area: bacterial and viral diseases. While this proved to be too limiting, several early decisions had been made in the selection of some materials relating to the writing section. While the initial plan involved the writing of abstracts, this was changed to the writing of summaries on the basis of the difficulty in setting up the activity of writing an abstract. To write abstracts, the students would need to have research from which to write them. As the students would not have their own research, they would have to be given articles which they would need to read and understand in depth. Given that they only had three classes for this task, the challenge seemed too great. As an alternative, summary writing was chosen: Students would be given a text on a disease, which they would be shown how to summarize in about a third the number of words. They would then be given another text on a different disease which they would summarize, and which would form part of their evaluation.

In making the switch to summarization, the decision was made to choose something that could potentially connect with both the *medical conversations* and *medical discussions*. While it was assumed that *medical conversations* would involve many mundane medical problems which had standard treatments that the students would know, medical discussions might need something more dramatic. Consequently, a viral disease and a bacterial disease were chosen: ebola and tuberculosis. As noted above, more detailed discussion to avoid duplication had led to the use of medical ethics as the primary focus of the *medical discussions*. However, the selection of a text on ebola proved very useful from a teaching point of view. As it is such a virulent disease, there are a great number of symptoms, and so the text was very rich in words and phrases that apply to other diseases. Such language could feed through to *medical conversations*. Also, one key text in the *medical conversations* involved a case of suspected tuberculosis, which connected to the second reading text in the summary writing. Students would be required to summarize

this text, and the summaries would be marked as part of the evaluation of the course participants.

#### CREATING A MEDICAL CORPUS AND VOCABULARY LIST

As mentioned previously, it was decided to build a corpus of medical texts from which a word list would be created to provide a useful resource in each of the students' classes. Since the reading/writing component of the course, which focused on infectious diseases, was considered to provide the heaviest vocabulary load, the texts selected for the corpus were all taken from this particular area of medicine. Time restraints meant that the resulting corpus consisted of eight online articles, including the ebola and tuberculosis texts used in the summary writing classes, and totalled just 50,000 words. Nevertheless, it was felt that this was a sufficient size to compile a short list of the most relevant medical terms.

The medical corpus was saved in text format, and run through *AntConc* (Anthony, 2011), a free corpus analysis toolkit. A preliminary word list was produced based on the criteria of frequency, "range" (occurring in most of the articles), and "keyness" (when words were seen to be characteristic to the medical corpus in comparison with a reference corpus). The software was also able to identify multiword items and show with a concordancer how words in the list are used in context.

The list was then further developed to fit with the language involved in the course: Function words, along with words deemed to be either unproblematic or overly specialized for learners at this level, were removed from the list. Next, each teacher examined the materials that he had prepared and chose twelve key words and phrases from each unit of material. Many of these were already in the list (a strong indication of its usefulness), but the extra items were added. Any intuitively important medical terms missing from the list (based on the corpus compiler's medical knowledge) were also added. For ease of use it was decided to list the words alphabetically, although it would also be possible to present them under the following headings: body organs & anatomy; viruses & bacteria; diseases; symptoms & conditions; diagnosis & transmission, biochemistry & cell biology; procedures & treatment; medication. Finally, with reference to the contextual information provided by the concordancer, a Japanese translation of each entry on the list was provided. The resulting glossary contained a manageable 380 items, most of which were expected to be encountered in the classes, and many in context (see Appendix 1 for a sample page of the Medical Vocabulary List). Of the words that would be seen in context, 144 key items were selected for testing in the last class of the course as part of the students' evaluation.

#### CLASSES AND MATERIALS

As noted above, the third-year students were placed in four groups, and each group received the same instruction from the four teachers. Each saw a group three times and in most cases there was a planned progression for those three classes. General approaches to the classes are summarized below.

#### Summary Writing: Ebola and Tuberculosis

Two texts were used in these classes: one on ebola, and one on tuberculosis. These were based on online encyclopedia entries of the diseases which had been shortened, edited and partially rewritten, so that they were of an appropriate level and an appropriate length of about 1,000 words each. The aim of the sessions was to show students how to summarize a 1,000-word medical article in around 300 words. Both articles had been used in the development of the corpus for the course, so students could refer to the medical word list for a Japanese translation of any unfamiliar vocabulary. Over the three classes, the students were taken step-by-step through the process of summarizing the ebola article, and then given the task of reading the article on tuberculosis and writing their own summaries of it. Although the focus in this part of the course was on reading and writing skills, speaking and listening practice was also provided in the form of quizzes and short discussion activities.

#### Medical Discussions: Doctor-assisted Suicide

Students were shown a DVD of an academic discussion: a lecture by Michael Sandel on justice. They did comprehension activities on the lecture, initially working with a dubbed Japanese version with English subtitles in order to get a general understanding of the lecture, then watching it in English with English subtitles. Key words and phrases for expressing views and arguments were highlighted by the teacher. The students then considered the issue of doctor-assisted suicide with a focus on Jack Kevorkian, undertaking dictation work and discussing his activities. They were asked to write their own ideas and views on the issue. They then read each other's texts and tried to make improvements on them. Finally, they were asked to discuss their views in pairs, then in fours and finally to report on their discussion to other groups.

#### Medical Conversations: Medical Histories, Symptoms

Students engaged in a variety of communicative activities, sometimes working on oral language exercises, such as identifying words from spoken definitions, as well as practising dialogues and undertaking role-plays. For example, students listened to medical conversations from a CD and were asked to perform some comprehension tasks and other vocabulary work. They then practised simplified forms of the conversation, once by reading the words, a second time with only the first letters of the words as an aid to memory. They then practised key words and phrases from the conversations. After that they prepared for role plays, in which "patients" were given a list of symptoms and "doctors" were required to make notes. Finally, students had to work together to match each set of symptoms to a medical problem. In other activities, students were given groups of words and asked to construct dialogues from them.

#### **FEEDBACK**

At the end of the course, students were asked to answer a feedback questionnaire (Appendix 3). Four of the questions (Q1, Q2, Q3, Q5) required students to choose one of four

options, two of the options being negative responses and two being positive responses. For example, in relation to student motivation, the options were:

Very motivated Motivated Not so motivated Not motivated

A four-point scale was used because it has no neutral point, and so students are required to make a decision on whether they judge an item positively or negatively. For the four-point scales the highest positive number is four and the lowest negative number is one. For Q4 and Q6 students were required to answer "yes" or "no". The results are shown below (Table 1 and Table 2). In terms of a collective response to the course on the basis of averages, students' responses to it were positive. Over 75% of the students thought that the intensive course was a good way to study English and that their English had improved. They were positive about the clarity of the teaching and its usefulness. Out of the four-option answers, the best response was in relation to the word-list (an average of 3.3).

TABLE 1. Averages and Percentages

Averages (1 decimal place)				
Q	Average			
1. student motivation	2.9			
2. perceived usefulness	3.0			
3. clarity of classes/materials	3.0			
5. word list (usefulness)	3.3			
Percentages (Yes/No question	s)			
4. Students who felt their English improved: 82.5%				
6. Students who thought the intensive course was a good way to study English: 78.3%				

TABLE 2. Detailed Breakdown of Student Responses

	4(N)	3(N)	2(N)	1(N)	Total	Average
Q						
1	14	65	25	2	106	2.9
2	20	67	17	2	106	3.0
3	21	70	12	3	106	3.0
5	38	61	6	1	106	3.3
Q	Yes	No			Total	Yes%
4	87.5	18.5			106	82.5
6	83	23			106	78.3

#### DISCUSSION: POSSIBILITIES FOR FUTURE COURSES

We have described the course as experimental because it was, for those involved, the first undergraduate course taught as a team of teachers and focused on EMP. A number of ideas emerge from this course relating to the following: intensive courses; teaching students at a particular point in their education, and in a particular faculty; the potential usefulness of corpora and word lists in organizing syllabuses and materials.

A key point is on the merits of intensive courses over semester courses. The decision to teach the course intensively was a practical one, made on the basis of the difficulty of creating the course, which required far more preparation than the normal general English courses. However, a number of benefits emerged from teaching the course intensively: Student attendance was consistently very high and the student focus was generally strong. For four days, students were focused on English with very few other distractions. Although, in feedback, the figure for student motivation is marginally lower than the other results, the great majority of students worked very consistently over the four days.

The teaching of a particular year of a particular faculty had a number of advantages. It allowed teachers to focus on language that was relevant to students of a similar academic background, and as groups they worked well together.

One key issue was the development of a mini-corpus. This emerged because one of the teachers was a corpus specialist, and creating a word list was considered one way of developing cohesion for the course. Given that the course was new, its development came through a number of intertwining factors, particularly teacher experience, published medical English teaching materials, and online medical texts. Words from these sources were incorporated into the initial word list that was built through an analysis of a number of medical articles. An important result of the feedback was the value that the students attached to the final word list, and this suggests possibilities for future course development: the organization of a syllabus on the basis of the creation of a medical corpus and the development of materials on the basis of an analysis of that corpus.

Regarding syllabus organization, in the initial stages of discussion for the course, it became clear that the teaching staff on the medical program do introduce English words in their classes based on their own judgements, but this information is held by individual members. For the teaching team from the Institute, it was not possible for us to know how this was being done and what words were being taught. It is also possible that different medical teachers will not be aware of what English words their colleagues are teaching. In a similar way that the intensive course word-list helped to make the course more cohesive, the development of a corpus in collaboration with medical teaching staff offers the possibility of systematizing the learning of key terms in English by organizing them in line with what is being taught through the medium of Japanese in medical classes, and in making an overt word syllabus that can be examined by any member of staff or by students. An avenue of practical research and materials development would be for a small group of applied linguists at the Institute to work with the medical teaching staff to develop groups of words and organize them into year-by-year syllabuses. Medical

teaching staff members know what they teach and know the key texts that they wish their students to study. They also have ideas on key medical words in their specialist fields. A team of applied linguists could analyze key texts recommended by medical staff, create word lists with accompanying data for medical staff to review and also examine words chosen by medical staff. In this way, a lexical syllabus would emerge from the decisions made by key teachers from within the medical department. Based on the emerging word syllabus, teaching materials could be developed.

#### CONCLUSION

In this article, we have described an experimental intensive course for medical students. As a course it was experimental from the perspective of being an ESP course taught by a team of teachers, which presented challenges in terms of coordination between the team members and developing materials and classes on the basis of medical topics. Feedback from the students indicates that the course was viewed positively.

While most English teaching classes focus on general English, the creation of the intensive course raises the possibility of tailoring classes to the specialisms of particular faculties. In relation to the medical faculty, in which the vast majority of students will become medical practitioners, there is a potential opportunity to build lexically-based syllabuses and materials through collaboration with the medical teaching staff.

Finally, it is worth noting the relationship between English for Specific Purposes and English for General Purposes. Hutchison and Waters (1987: 18) argue that ESP "is not a matter of teaching 'specialised varieties' of English," and that while there are differences, they should not "obscure the far larger area of common ground that underlies all English use." The identification of the most valuable words within a discipline through corpus analysis can be used to develop materials in the form of written and spoken texts and pedagogic tasks that aid students in developing an ability to use English in a specialized field. The skill of ESP materials writers and teachers is in creating manageable steps towards mastery of English in such fields. Given the human resources of the Institute for Foreign Language Research and Education, there is the potential to work with faculties to generate corpora and Word lists that link into their main areas of study, and to generate teaching and learning materials that have specific relevance to future work in these areas.

#### NOTE

1) Both the creation and the success of the course would not have been possible without the assistance and guidance of a number of key individuals who gave help and support to the authors. We wish to express our thanks to the following people: Dr. Keiso Tatsukawa, the Director of the Institute for Foreign Language Research and Education, who liaised with the Faculty of Medicine and the authors, as well as providing support on the first day of the intensive course; Dr. Masao Yoshizumi who requested the course and gave it his full support; Paul Kirk, the English specialist on the medical campus, who gave advice and support to the

authors; the administrative staff of the medical faculty who helped give important and prompt technical aid that ensured the course ran smoothly.

#### REFERENCES

Anthony, L. (2011). *AntConc (Version 3.2.4)* [Computer Software]. Tokyo, Japan: Waseda University. Available from http://www.antlab.sci.waseda.ac.jp/

Chabner, D-E. (2012). Medical Terminology 6th Ed. St Louis, Missouri: Elsevier.

Dudley-Evans, T. and St John M. J. (1998). *Developmens in English for Specific Purposes*. Cambridge: Cambridge University Press.

Glendinning, E. and Holmstrom, B. (2005). *English in Medicine*. Cambridge: Cambridge University Press.

Glendinning, E. and Howard, R. (2007). *Professional English in Use Medicine*. Cambridge: Cambridge University Press

Hutchison, T. and Waters, A. (1987). *English for Specific Purposes*. Cambridge: Cambridge University Press.

Jordan, R. R. (1997). *English for Academic Purposes*. Cambridge: Cambridge University Press Lander, J. (2006). *English for Health and Medicine*. Tokyo: Asahi Press.

McBean, B. (2004). Healthtalk. Tokyo: MacMillan Languagehouse.

McCarter, S. (2010). Medicine 2. Oxford: Oxford University Press.

Pohl, A. (2002). Test Your Professional English Medical. Essex: Penguin.

Sandel, M. J. (2010a). *Harvard University's Justice with Michael Sandel*. [DVD]. Tokyo: NHK Enterprises.

Sandel, M. J. (2010b). ハーバード自熱教室講義録. Tokyo: Havakawa.

#### APPENDIX 1

#### Medical Vocabulary List (sample page)

Α  $\mathbf{C}$ abdomen 腹部 cancer abdominal 腹部の 死体 死骸 carcass acid-fast 抗酸性の 発癌性物質 carcinogen activate (a nerve) 活性化する carcinogenic 発癌性の active 活動性 cardiovascular system 心臓血管系 acute 急性の carrier (e.g. of a virus) 感染者 投与する 原因物質 administer causative agent administration 投与 原因 cause adverse effects 副作用 細胞(の) cell / cellular adversely affect 害を及ぼす central nervous system (CNS) 中枢神経系 好気性の aerobic cervical tension 頸部緊張 エアロゾル cervix 頸 aerosol agitation 興奮 characteristic(s) 特徵 AIDS (Acquired Immunodeficiency Syndrome) chest 胸 エイズ、後天性免疫不全症候群 chicken pox 水疱瘡 alertness 即応力 敏捷性 chills 悪寒 alopecia 脱毛症 choroiditis 脈絡膜炎 肺胞 (マクロファージ) alveolar (macrophage) chronic 慢性の アミノ酸 amino acid circulatory system 循環系 anaemia / anemia 貧血 clinical (esp. clinical trials) 臨床の(治験) anal 肛門の coagulant 凝固剤 ankle 足関節 coagulation 凝固 抗生物質 antibiotic(s) complex (structures, viruses, molecules) 複合 抗体 antibody complications 合併症 anti-coagulant 抗血液凝固剤 commit suicide 自殺する 病訴 不調 antigen 抗原 complaint antimycotic(s) 抗直菌 confusion 精神錯乱 抗ウイルス性の antiviral conjunctiva 結膜 anxiety 不安 心配 苦悶 constipation 便秘 appetite (loss) 食欲 (不振) contact 接触 artery 動脈 contagious (esp. contagious disease) 伝染性細菌性疾患 関節痛 arthralgia contaminated 汚染された 分析 コントロール (する) assav control associated 関連の coughing / cough 咳嗽 culture (e.g. cell culture, tissue culture) (細胞) 培養 asymptomatic 無症候性 В D バチルス, 桿菌 bacilli / bacillus debilitating 消耗性 bacteria / bacterium バクテリア、細菌 鬱病 depression 変性 退行性 bacterial 細菌の、細菌性の degenerative barrier nursing 隔離看護 dehydration 脱水 bloodstream 血流 desquamation 落屑 body/bodily fluids 体液 detect 検出する bone(s) 骨 detection 検出 diabetes mellitus 真性糖尿病 bowel(s) breastbone 胸骨 diagnose 診断する 気管支 bronchi

bruise

打撲

# APPENDIX 2 Examples of Test Questions

Name:	Student Number:
	Intensive Medical English Course 2012
	Vocabulary Test
Answer all the question.	s.
	Part 1
Translate the words int	o English.
1.) 便	
O) III	
3.) 打撲	
	Part 2
Circle the correct answe	r.
1.) After examining the	patient, the doctor made a
A) disorder	
B) diagnosis	
C) diarrhea	
D) diagonal	
2.) The influenza	of 1918 killed an estimated 50 million people.
A) encrustation	
B) epidermis	
C) endemic	
D) epidemic	
3.) Sinusitis is an	of the sinuses.
A) inflammation	
B) invasion	
C) infestation	
D) interpretation	

## Part 3

(a) distinction between

Write the words and phrases from the box in the correct places in the paragraph.

depending on

	(a) term used for otherwise state of mind
"Depi	ression" is (1.) a variety of mental states. It is important to
	mild depression and severe depression. Treatment of depression
	(3.) the condition of the patient. Those who describe serious
	of depression such as self-inflicted wounds should be seen immediately by a trained
	st. (4.), they may damage themselves badly. Most forms of
	can now be successfully treated through counselling and prescription drugs, and a
	can dramatically improve after such treatment.
For ea of words in	ach patient write the name of the body system which is affected. Use the words/parts n the box.
	nervous cardio urinary intestinal central system genito gastro vascular respiratory
6.) Th	ne patient has stomach pain and can't eat.
7.) Th	ne patient has an irregular heartbeat and swollen ankles.
8.) Th	ne patient is suffering from a bad cough and finds breathing painful.
9.) Th	ne patient finds it very painful passing water.
	'he patient's arms and legs feel weak and she has problems feeling things with her ands.

## APPENDIX 3

## Intensive Medical English Course Feedback Questionnaire

1.) How motivated are you to develop your medical English skills?							
Very motivated Motivated Not so motivated Not motivated Comment:							
2.) How useful was the course? (Circle one answer)							
Very useful Useful Not so useful Not useful Comment:							
3.) How clear were the classes and teaching materials?							
Very clear Quite clear Not so clear Not clear Comment:							
4.) Do you feel your English improved during the course? If so, in what way(s)?							
Yes No Comment:							
5.) How useful was the medical word list?							
Very useful Quite useful Not so useful Not useful Comment:							
6.) Was the intensive course a good way to improve your English skills?							
Yes $No$ Comment:							
7.) How can the course be improved?							

#### 要 約

#### 医学部3年生を対象とした「医学英語」集中講座の導入とその評価

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本稿は、医学部3年生(108人)を対象に提供した4日間に渡る「医学英語集中講座」について報告し、今後の「医学英語授業」の望ましい方向性について提言しようとするものである。本講座の企画・立案・実施の過程で、「特定の学術目的のための英語(English for Specific Academic Purposes)」と「職業目的のための英語(English for Vocational Purposes)」について比較・検討した。その結果、医学部生に対しては、学部レベルでの修学内容と医療業界における職務との間には強い関わりがあるので、「医学目的のための英語(English for Medical Purposes)」というような、より広い捉え方が適当であると考えた。

本講座の授業内容は、大きく「要約文ライティング(summary writing)」「医療業務場面での会話(medical conversations)」そして「医学に関するディスカッション(medical discussions)」の3つの活動に分けることとし、それぞれの活動で扱う内容を吟味し、その指導方法について協議した。さらに、これらの活動で用いる教材を作成(選択)するとともに、この講座全体を通して学習する重要語彙リストを作成した。具体的には、ウェブ上に掲載された医学論文から小規模のコーパスを作り、このコーパスを基に「基本語彙リスト」をまとめた。そして、教材を準備する過程で、さらなる基本重要語彙を追加した。この最終語彙リストは、本講座開始時に学生に配布され、講座の最後に実施される評価テストの出題対象語彙としても活用された。学生たちに対する評価は「語彙テスト」「要約文」「授業での学習(参加)態度」を基になされた。

学生による授業評価では、本講座に対して概ね肯定的な回答を得た。とりわけ、作成し配布された「基本語彙リスト」は最も肯定的な評価を得た。このような結果(成果)を基に、今後は医学部教師による専門的見地からのチェックも得て、より広範囲に渡るコーパスと語彙リストを開発し、それらに基づいた教材開発に取り組んでみたいと考えている。