大学医用英语系列教材

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English for Public Health

公共卫生英语教程

主编 王学功 赵昶昕

复旦大學出版社

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前　言

《大学医用英语系列教材》是为医学类高等院校学生编写的专业英语教材，由包头医学院和内蒙古医科大学合作编写，马江涛和奎晓兰担任总主编。本系列教材由《基础医学英语教程》、《临床医学英语教程》和《公共卫生英语教程》3册组成，每册12个单元，附有光盘。

改革开放以来，医学领域国际间的交流与合作日益频繁，越来越多的医务人员开始走出国门，走向世界。外资医院也开始进入国内医疗领域，医务人员获得以英语为工作语言的国际化医疗岗位的机会与日俱增。医学领域需要大批既掌握丰富的医学专业知识，又具备较强的以英语为语言工具获取专业信息、进行学术交流，以及从事科学研究等能力的复合型专业人才。按照教育部提出的大学生完成基础阶段英语学习之后应进入结合各自专业的英语学习阶段（应用提高）的总体要求，基于以往专业英语的教学实践和结合当前医学生学习、掌握英语的能力及现有实际英语水平，我们组织具有丰富专业英语教学经验的教师编写了这套系列教材。

1. 编写宗旨

本系列教材的编写宗旨是：遵循现代外语教学理念，按照专业英语的特有规律并结合目前医学英语教学的实际，满足医学专业学生对专业英语的个性化需求；全面培养学生医学英语的应用能力，尤其是阅读和翻译能力，使他们在今后的医疗和科研工作中能用英语有效地获取专业知识和相关信息，并能以英语作为工作语言进行学术交流。

2. 编写理念

本系列教材的编写理念是：遵循语言规律，重视专业特点，反映医学发展现状，体现现代医学理念。本系列教材的编写既遵循英语语言的一般性规律，又充分考虑医学英语的特殊性和复杂性，注重体现科学性、反映时代性和突出实用性。

3. 编写原则

1）强化专业特点，满足个性化需求

医学英语是与医学专业知识相结合的专门用途英语。据此，本系列教材分为《基础医学英语教程》、《临床医学英语教程》和《公共卫生英语教程》3册，以满足医学专业学生对专业英语的个性化需求。

2）选材范围宽泛，内容严谨科学

本系列教材选材范围较广，几乎涵盖了基础医学、临床医学和公共卫生的主要领域。所选材料均来自国外较权威的报纸、杂志、教材及专著。这些材料语言规范、内容严谨，体现所属领域的发展与成果。每个单元的A、B两篇课文都属同一学科领域或同一个专题。课后主要练习内容也与课文主题相一致。

3）阅读翻译为主，兼顾口语写作

根据学生未来主要通过阅读获取信息的实际要求，本系列教材以阅读与翻译为主，同时兼顾口语与写作，配有问题讨论与开放式写作练习。教材配有较多形式多样、实用的练习题，分为4类8种形式，以激发学生的学习兴趣，深化对课文的理解及巩固课内所学内容。

4）注重学以致用，强调自主学习

本系列教材的内容与形式紧扣实践需要，具有较强的实用性，有利于学生学以致用。教材内容分为课内教学和课外自主学习两部分，以培养和提高学生的自主学习能力。为方便学生自学、弥补课内学时不足和提高学习效率，本系列教材配有光盘，提供有声资料。

4. 使用建议

《基础医学英语教程》适用于药学、医学检验和护理等4年制专业学生；《临床医学英语教程》适用于临床、法医、口腔、影像、放射和麻醉等5年制专业学生；《公共卫生英语教程》适用于预防医学、卫生事业管理和卫生检验等4年制或5年制专业学生。建议《基础医学英语教程》的授课学时数为48学时，《临床医学英语教程》为60学时，《公共卫生英语教程》为60学时。

总主编

2013年6月

本册使用说明

《大学医用英语系列教材：公共卫生英语教程》是为医学专业学生编写的专业英语教材，适用于预防医学、卫生事业管理和卫生检验等 4 年制或 5 年制专业学生。本教材旨在帮助已完成基础阶段英语学习的学生学习和掌握公共卫生相关专业英语，全面培养学生医学英语的应用能力。

本教材涉及公共卫生各学科内容，包括传染病、防疫、职业病、食品卫生、卫生事业管理和环境卫生等。全书共 12 个单元，每个单元 2 篇文章，分为精读课文（Text A）和泛读课文（Text B）。书末有附录，包括总词汇表和 Text B 的练习参考答案等内容。

每个单元包括课前准备、课堂学习、课外阅读和课后练习 4 个部分。

课前准备：命题讨论。在教师的提示下学生围绕主题展开讨论，以提高学生专业英语的听说能力。

课堂学习：Text A。供学生课内学习，由教师组织教学、详细讲解疑难点并提供参考答案和参考译文。

课外阅读：Text B。供学生课外学习，以自学为主。课文后附有注释。

课后练习：与主题相关的综合性练习。Text A 的练习分为阅读理解、词汇和短语、翻译及写作 4 类。阅读理解练习包括回答问题、多项选择和正误判断；词汇练习包括选词填空和完形填空；翻译练习包括英汉和汉英翻译；写作练习包括摘要写作和报道写作。Text B 练习包括回答问题和正误判断两种练习。

本教材可供两学期使用，建议授课学时为 60 学时，每学期 30 学时。

本教材由包头医学院外国语系负责编写。主编为王学功和赵昶昕，编者有于彩霞、王学功、王春霞、李丽英、孟凡茹、赵昶昕。全体编者参与了本教材的策划、选材和审定。主编王学功负责统稿，并对本教材的编排体例、词汇和课后练习进行修改和审校。孟凡茹老师也参与了全书的审校工作。

囿于编者的专业素养、学术水平和编写条件，本教材难免有疏漏和不妥之处，敬请专家和教职同道指谬赐教，诚望广大读者批评指正。

编　者

2014 年 7 月

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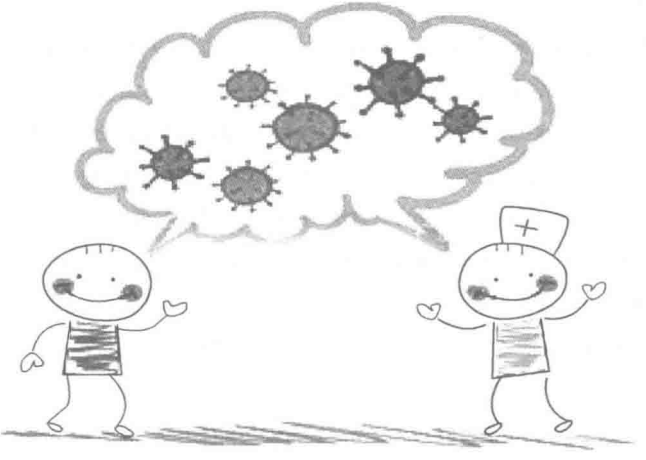
Unit 1

Infectious Diseases I

Warming-up Exercises

1. What are the causes of infectious diseases?
2. What can you do to prevent infectious diseases from spreading?
3. How do you think infectious diseases will transmit?



Text A

Infectious Disease

Infectious disease, also known as contagious disease or transmissible disease, comprises clinically evident illness (i.e., characteristic medical signs and/or symptoms of disease) resulting from the infection, presence and growth of pathogenic biological agents in an individual host organism. In certain cases, 1

infectious disease may be asymptomatic for much or all of their courses. Infectious pathogens include some viruses, bacteria, fungi, protozoan, multicellular parasites, and aberrant proteins known as prions. These pathogens are the cause of disease epidemics.

Transmission of pathogen can occur in various ways including physical contact, contaminated food, body fluids, objects, airborne inhalation, or through vector organisms. Infectious disease that is especially infective is sometimes called contagious disease and can be easily transmitted by contact with an ill person or their secretions. Infectious disease with more specialized routes of infection, such as vector transmission or sexual transmission, is usually regarded as contagious but do not require medical quarantine of victims.

Classification

Among the almost infinite varieties of microorganisms, relatively few cause diseases in otherwise healthy individuals. Infectious disease results from the interplay between those few pathogens and the defenses of the hosts they infect. The appearance and severity of diseases resulting from any pathogen depends upon the ability of that pathogen to damage the host as well as the ability of the host to resist the pathogen. Clinicians therefore classify infectious microorganisms or microbes according to the status of host defenses — either as primary pathogens or as opportunistic pathogens.

Primary pathogens cause diseases as a result of their presence or activity within the normal, healthy host, and their intrinsic virulence (the severity of the disease they cause) is, in part, a necessary consequence of their need to reproduce and spread. Many of the most common primary pathogens of humans only infect humans; however, many serious diseases are caused by organisms acquired from the environment or which infect non-human hosts.

Organisms which cause infectious disease in a host with depressed resistance are classified as opportunistic pathogens. Opportunistic disease may be caused by microbes that are ordinarily in contact with the host, such as pathogenic bacteria or fungi in the gastrointestinal or the upper respiratory tract, and they may also result from microbes acquired from other hosts or from the environment as a result of traumatic introduction (as in surgical

wound infections or compound fractures). Opportunistic disease requires impairment of host defenses, which may occur as a result of genetic defects (such as chronic granulomatous disease), exposure to antimicrobial drugs or immunosuppressive chemicals, exposure to ionizing radiation, or as a result of an infectious disease with immunosuppressive activity. Primary pathogens may also cause more severe diseases in a host with depressed resistance than would normally occur in an immunosufficient host.

Transmission

Infectious disease is transmitted from some sources. Defining the means of transmission plays an important part in understanding the biology of an infectious agent, and in addressing the disease it causes. Transmission may occur through several different mechanisms. Respiratory disease and meningitis are commonly acquired by contact with aerosolized droplets, spread by sneezing, coughing, talking, kissing or even singing. Gastrointestinal disease is often acquired by ingesting contaminated food and water. Sexually transmitted disease is acquired through contact with bodily fluids, generally as a result of sexual activity. Some infectious agents may be spread as a result of contact with a contaminated, inanimate object (known as a fomite), such as a coin passed from one person to another, while other diseases penetrate the skin directly.

Transmission of infectious disease may also involve a vector. Vectors may be mechanical or biological. A mechanical vector picks up an infectious agent on the outside of its body and transmits it in a passive manner. An example of a mechanical vector is a housefly, which lands on cow dung, contaminating its appendages with bacteria from the feces, and then lands on food prior to consumption. The pathogen never enters the body of the fly.

In contrast, biological vectors harbor pathogens within their bodies and deliver pathogens to new hosts in an active manner, usually a bite. Biological vectors are often responsible for serious blood-borne diseases, such as malaria, viral encephalitis, Chagas disease, Lyme disease and African sleeping sickness. Biological vectors are usually, though not exclusively, arthropods, such as mosquitoes, ticks, fleas and lice. Vectors are often required in the life cycle of a pathogen. A common strategy used to control vector borne infectious disease

is to interrupt the life cycle of a pathogen by killing the vector.

Prevention

The most effective way to prevent the spread of infectious disease is washing one's hands. Use soap and warm water to rub your hands really well for at least 15 seconds. Rub your palms, fingernails, in between your fingers, and the backs of your hands. If your hands do not look dirty, clean them with alcohol-based hand sanitizers. Rub the sanitizer all over your hands, especially under your nails and between your fingers, until your hands are dry. Clean your hands before touching or eating food. Clean them after you use the bathroom, take out the trash, change a diaper, visit someone who is ill, or play with a pet.

Another effective way to prevent or slow down the transmission of infectious disease is to recognize the different characteristics of various diseases. Some critical disease characteristics that should be evaluated include distance traveled by victims, and level of contagiousness. The human strains of Ebola virus, for example, incapacitate its victims extremely quickly and kills them soon after. As a result, the victims of this disease do not have the opportunity to travel very far from the initial infection zone. Also, this virus must spread through skin lesions or permeable membranes such as the eye. Thus, the initial stage of Ebola is not very contagious since its victims experience only internal hemorrhaging. As a result of the above features, the spread of Ebola is very rapid and usually stays within a relatively confined geographical area. In contrast, the Human Immunodeficiency Virus (HIV) kills its victims very slowly by attacking their immune system. As a result, many of its victims transmit the virus to other individuals before even realizing that they are carrying the disease. Also, the relatively low virulence allows its victims to travel long distances, increasing the likelihood of an epidemic.

(1,048 words)

New Words and Phrases

infectious [ɪnˈfekʃəs] *a*. (指疾病)传染的;传染性的

contagious [kən'teɪdʒəs] *a*. (疾病)接触传染的
transmissible [trænz'mɪsəbl] *a*. 可传染的;传染性的
comprise [kəm'praɪz] *v*. 包含,包括;由……组成
clinically ['klɪnɪkəlɪ] *ad*. 临床上地
pathogenic [ˌpæθə'dʒenɪk] *a*. 致病的;病原性的
agent ['eɪdʒənt] *n*. (化学)剂
host [həʊst] *n*. (寄生物的)寄主
organism ['ɔːgənɪzm] *n*. 生物;有机体
asymptomatic [æˌsɪmptə'mætɪk] *a*. 无症状的
fungus ['fʌŋgəs]([复]fungi ['fʌŋgaɪ]) *n*. 真菌
protozoan [ˌprəʊtə'zəʊən] *n*. 原生动物
parasite ['pærəsaɪt] *n*. 寄生生物
aberrant [æ'berənt] *a*. 畸变的;异常的
prion ['priːɒn] *n*. 朊病毒;蛋白侵染子
epidemic [ˌepɪ'demɪk] *n*. 流行病
a. 流行性的
contaminated [kən'tæmɪneɪtɪd] *a*. 被污染的
airborne ['eəbɔːn] *a*. 空气传播的
inhalation [ˌɪnhə'leɪʃən] *n*. 吸入;吸入物
vector ['vektə] *n*. 带菌者;载体
secretion [sɪ'kriːʃən] *n*. 分泌物;分泌
quarantine ['kwɒrənti:n] *n*. 检疫;(为防传染的)隔离期
clinician [klɪ'nɪʃən] *n*. 临床医师
microbe ['maɪkrəʊb] *n*. 微生物;细菌
intrinsic [ɪn'trɪnsɪk] *a*. 固有的;内在的
virulence ['vɪrjʊləns] *n*. 剧毒性,致命性;毒力,毒性
traumatic [trɔː'mætɪk] *a*. (精神上或肉体上)创伤的
fracture ['frækʧə] *n*. 骨折
impairment [ɪm'peəmənt] *n*. 损伤
chronic ['krɒnɪk] *a*. (疾病)慢性的
granulomatous [ˌgrænjʊ'lɔːmətəs] *a*. 肉芽肿的
antimicrobial [ˌæntɪmaɪ'krəʊbɪəl] *n*. 抗菌剂
a. 抗菌的
immunosuppressive [ˌɪmjʊnəʊsə'presɪv] *a*. 免疫抑制的

ionizing radiation	电离辐射
meningitis [ˌmenɪnˈdʒaɪtɪs] *n*.	脑(脊)膜炎
aerosolize [ˈeərəʊˌsɒlaɪz] *v*.	使成烟雾状散开
ingest [ɪnˈdʒest] *v*.	咽下;吸收
inanimate [ɪnˈænɪmət] *a*.	无生命的;无生气的
fomite [ˈfəʊmaɪt] *n*.	传染物
dung [dʌŋ] *n*.	动物的粪便;污物
appendage [əˈpendɪdʒ] *n*.	附属器官;附属物
feces [ˈfiːsiːz] *n*.	粪;渣滓
encephalitis [enˌsefəˈlaɪtɪs] *n*.	脑炎
Chagas disease	查加斯病,南美洲锥虫病
Lyme disease	莱姆病
arthropod [ˈɑːθrəpɒd] *n*.	节肢动物
sanitizer [ˈsænɪtaɪzə] *n*.	消毒剂;(食品)防腐剂
incapacitate [ˌɪnkəˈpæsɪteɪt] *v*.	使无能力;使伤残
lesion [ˈliːʒən] *n*.	损害;身体器官组织的损伤
permeable [ˈpɜːmiːəbl] *a*.	可渗透的,具渗透性的
membrane [ˈmembreɪn] *n*.	(动物或植物体内的)薄膜,隔膜;细胞膜

Exercises

Ⅰ. Reading Comprehension

A. Answer the following questions.

1. What do infectious pathogens include?
2. How do clinicians classify infectious microorganisms or microbes?
3. What does opportunistic disease require?
4. How are respiratory disease and meningitis commonly acquired?
5. Why is the initial stage of Ebola not very contagious?

B. Choose the right answer to each question.

1. Which of the following statement is NOT true according to the passage?
   A. In certain cases, infectious disease may have no symptoms for much or all of their courses.

B. Infectious disease can be easily transmitted by contact with an ill person or their secretions.

C. All the primary pathogens of humans only infect humans.

D. HIV kills its victims very slowly by attacking their immune system.

2. Among the almost infinite varieties of microorganisms, _____ cause diseases in otherwise healthy individuals.

A. many B. a few C. relatively few D. some

3. A common strategy used to control vector borne infectious disease is to interrupt the life cycle of a pathogen by _____.

A. killing the vector

B. a contaminated, inanimate object

C. ingesting contaminated food and water

D. bodily fluids

4. A mechanical vector picks up an infectious agent on the _____ of its body and transmits it in a _____ manner.

A. inside, passive B. outside, passive

C. inside, active D. outside, active

5. The effective ways to prevent infectious disease are _____.

A. to wash one's hands

B. to recognize the different characteristics of various diseases

C. to travel very far from the initial infection zone

D. both A and B

Ⅱ. Vocabulary

A. Fill in the blanks with the words given below, and change the form where necessary.

contagious	antimicrobial	pathogenic	viral	virulence
traumatic	meningitis	fracture	aberrant	lesion
membrane	hemorrhage	asymptomatic	clinically	ingest

1. _____ of the leg can be very serious in old people.
2. The disease is often mild and may be even _____ in older children, adolescents, and adults.

3. A vibrating _____ in the ear helps to convey sounds to the brain.
4. Chicken pox is a(an) _____ disease.
5. The condition is not recognized _____ and is presumed to be rare.
6. The onset of depression often follows a(an) _____ event.
7. A(An) _____ infection may be localized, disseminated or inapparent.
8. The _____ of a disease is its ability to harm or kill people or animals.
9. Warning: For external use only. Do not _____. Keep out of children.
10. Man is host to a variety of _____ bacteria, protozoa, and viruses.

B. Fill in the blanks with the suitable words from each group.

Cholera

Cholera is an acute enteric infection caused by the __1__ of bacterium Vibrio cholera present in faecally contaminated water or food. Primarily linked to insufficient access to safe water and proper __2__, its impact can be even more dramatic in areas where basic environmental infrastructures are __3__ or have been destroyed. Countries facing complex emergencies are particularly __4__ to cholera outbreaks. Massive displacement of IDPs or refugees to overcrowded settings, where the provision of potable water and sanitation is challenging, constitutes also a risk factor. In consequence, it is of paramount importance to be able to rely on accurate surveillance data to monitor the evolution of the __5__ and to put in place adequate intervention measures. Coordination of the different sectors involved is essential, and WHO calls for the cooperation of all to limit the effect of __6__ on populations.

Cholera is characterized in its most severe form by a sudden onset of acute watery __7__ that can lead to death by severe dehydration. The extremely short __8__ period — two hours to five days — enhances the potentially explosive pattern of outbreaks, as the number of cases can rise very quickly. About 75% of people __9__ with cholera do not develop any __10__. However, the pathogens stay in their __11__ for 7 to 14 days and are shed back into the environment, possibly infecting other individuals. Cholera is an extremely __12__ disease that affects both children and adults. Unlike other diarrheal diseases, it can kill healthy adults within hours. Individuals with lower __13__, such as __14__ children or people living with HIV, are at greater risk of death if infected by cholera.