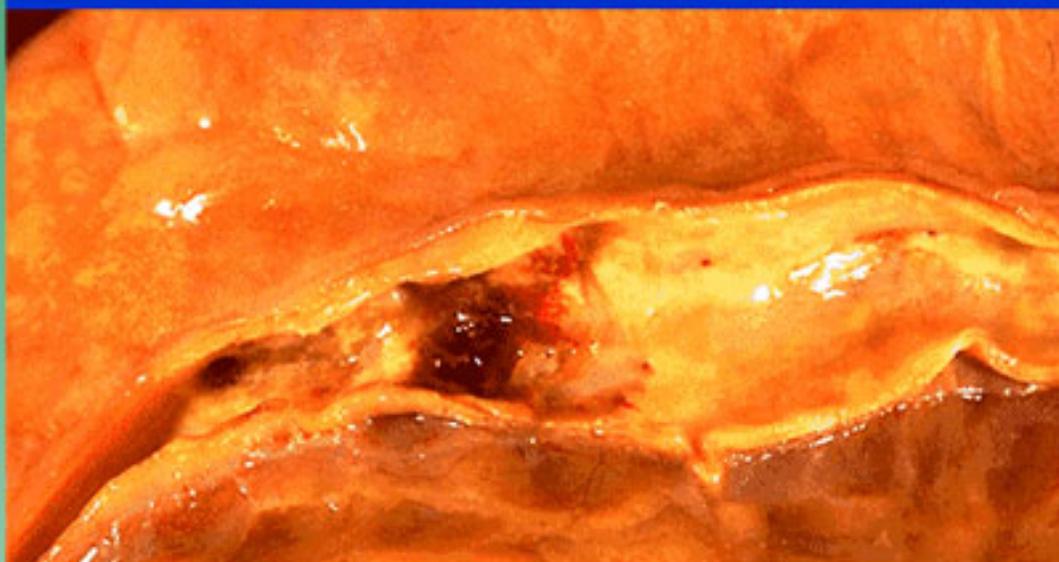


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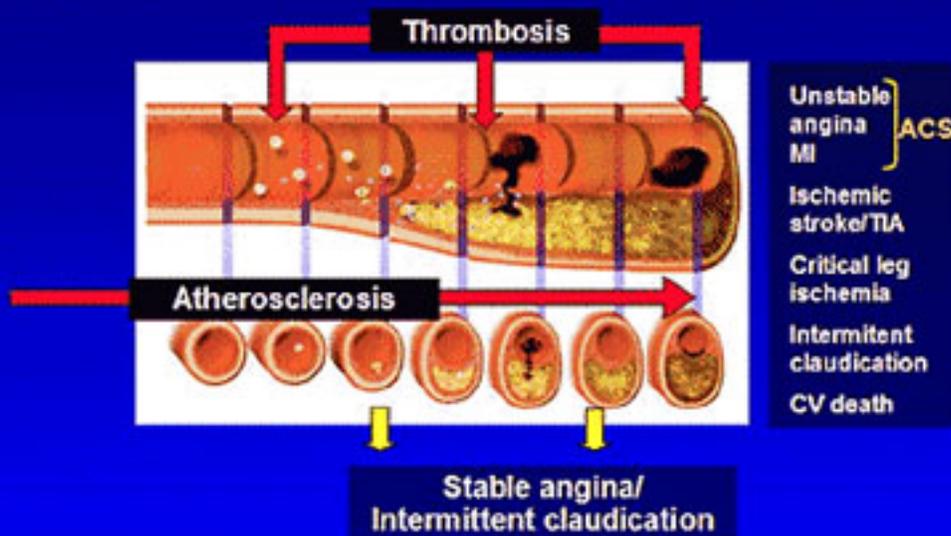
Fall/Winter 2004

A Publication of the Medical Division of the American Translators Association

ATHEROTHROMBOTIC DISEASE



Atherothrombosis: A Generalized and Progressive Process



Season's Greetings!



Caduceus is a quarterly publication
of the
Medical Division
of the

American Translators Association, a non-profit
organization dedicated to promoting the
recognition of translating and interpreting as
professions.

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FROM THE EDITOR

Toronto was a wonderful experience. As predicted, the Medical Division was well represented during all aspects of our annual conference. I was pleased to receive kudos from all sectors regarding Caduceus, particularly the impact it has had among our international members and readers.

This current combined Fall-Winter issue features the subject of atherothrombosis - the number one cause of death worldwide, certainly within the United States. We are honored to have world renowned cardiologist and Chairman of the Department of Cardiovascular Diseases at the Cleveland Clinic, Dr. Eric Topol, join forces with our own Assistant Editor, cardiologist, medical translator and author, Dr. Elena Sgarbossa to delve rigorously into the origins and nosology of the term. I am pleased to follow with an overview of the main clinical aspects of the atherothrombotic process for translators, a modified rendition of my presentation in Toronto.

Our plea to have other languages represented within Caduceus bears fruit in this issue as we include the Italian version of the previously published Glossary of Clinical Research by Dr. Marina Callegari and Dr. Gilberto Lacchia. Please notice that Dr. Lacchia has joined our editorial staff. Olga Lucia Mutis de Serna, Editor of *Intercambios*, the Spanish Language Division's newsletter, has provided us with the Glossary of Sexually Transmitted Infections she used in her Toronto presentation. Argentinian translator Andrea Alí provides a glimpse of the *Jornada Internacional de Traducción 2004* that took place in Rosario and brings to us her impression of Dr. Fernando Navarro, the well known Spanish physician, linguist, translator and lexicographer. Dr. Andrei Azov, a Russian physician currently in Denmark found a copy of Caduceus and wrote to us a complimentary note followed by an article that appears in this issue. Finally, the usual Latin American colloquialisms of interpreter and writer Roberto Guzmán are found on his regular feature *Frases médicas de la calle*.

Lastly, a heartfelt Season's Greetings to all Medical Division members and readers, particularly those who have contributed to the success of our newsletter this year.

Rafael

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ABOUT OUR COVER

The internet is the best and most readily available source of medical information for the public at large. With the exception of publications that require payment or membership in a particular organization in order to access information, most needs are well served through the use of the extraordinary search engines available to us all. That includes not only textual information but also illustrations that can be downloaded separately as well as ready made presentations of medical subjects that include text and graphics formatted as either regular slides or even a Power Point display.

Our cover is an example of excellent photography of a coronary artery with atherothrombosis and a schematic illustration of the progressive development of the atherothrombotic process.

Instructions to Authors

Submissions for publications must be sent electronically in Word format. The deadline for submissions for the Spring issue is 15 February 2005.

ATA Annual Conference Sites and Dates

2005
Seattle, Washington
November 9-12

.....
2006
New Orleans, Louisiana
November 2-5

Caduceus carefully reviews its content in order to eliminate any textual errors. Nevertheless, we apologize for any errors in grammar, punctuation, typography and the like which may inadvertently appear on our pages.

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Atherothrombosis: a Word Whose Time has Come

By Elena Sgarbossa and Eric Topol

We have been using the term **atherothrombosis** in medical parlance and literature for more than 30 years. Nowadays **atherothrombosis** is a prevalent term, but how did it enter the English language?

The first portion of the compound word "atherothrombosis" ever to be captured by a dictionary was its suffix. "Thrombosis" was already an English term by 1706. It applied, as it does today, to both the formation and presence of a thrombus within a blood vessel.¹ As for "thrombo-" (the affix) and "thrombus" (the word), both are rooted in the Greek word *thromvos* which means "clot": clot of blood, or milk curd. In turn, the prefix "athero-" originated in the Greek word *athere* (first recorded in 1875), which means "gruel" or "groats." From *athere* then evolved *atheroma* in both Greek and Latin to designate a tumor-like substance. Later on, "atheroma" became the choice word to name the pathological lipid and fibrous deposits that form plaques in the vascular endothelium.

By the time the English-speaking scientific community adopted the word atherothrombosis (in the 1950's-60's)², the related term "arteriosclerosis" had been in use for over a century. "Arteriosclerosis" was apparently coined by Lobstein in his 1835 publication "Lehrbuch der pathologischen Anatomie".³ The prefix "arterio-" alludes of course to "artery," which stems from the Greek *arteria*. Interestingly, in the 14th century *arteria* ("windpipe") was the name given to all tubular structures in the thorax. This included arteries, veins, and the bronchial tree. These structures were all found empty in cadavers, so they were all assumed to carry air. Anatomists eventually realized that while the tracheobronchial tree did carry air, arteries carried blood. They renamed the upper portion of the respiratory system *arteria trakheia* or "rough artery," referring to its rough cartilaginous structure. The term *arteria trakheia* was then split. The adjective *trakheia* became the name for the *trachea*, while *arteria* ("artery" in English) was reserved for certain vessels.⁴

As for the suffix *sclerosis* in "arteriosclerosis", it originated

in the Greek word *skleros*, meaning "hard." The name "arteriosclerosis" came to allude to the hardening of thickened arteries dotted by atheromas. Arteriosclerosis, however, is a broad term. It encompasses both atherosclerosis (the disease characterized by the presence of atheromas in the larger arteries), and non-atheromatous conditions such as focal calcific arteriosclerosis (Mönkberg's sclerosis) and arteriolosclerosis.

Atheromas and thrombos

In humans, atheromas and plaques start developing when the tunica intima of elastic arteries is injured. Progressive plaque formation is not an age-related degenerative process -as it was formerly assumed- but rather a chronic, usually slow-developing inflammatory condition that may begin in childhood and affect multiple arterial beds. Plaques develop as a consequence of a number of key processes that start with endothelial dysfunction and intimal (subendothelial) accumulation of lipids. Then follows the local migration, differentiation and activation of inflammatory cells, the recruitment and proliferation of smooth muscle cells, matrix synthesis, and the formation of a fibrous cap. If this cap ruptures or undergoes erosion of its endothelial layer (both of which are the mechanisms of "plaque disruption"), platelet aggregation and thrombus formation may follow.⁵

Thus, the disruption of atheromatous plaques may lead to thrombosis. Mural thrombi may then be incorporated into the plaque and either enhance its progression into a bulky atheroma or make it more prone to disruption, both of which may lead to vessel occlusion. Therefore, the fact that of the terms *atherosclerosis* and *atherothrombosis* the latter is nowadays the most used is quite pertinent. The name atherothrombosis captures the mutual role of plaque (*athero-*) in the formation of *thrombi* - and vice versa.

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Elena Sgarbossa, M.D. (*Caduceus Assitant Editor*) is a cardiologist who has worked in Argentina, Italy, and, the US (Cleveland and Chicago). After passing the U.S. medical licensing examination, she became interested in comparative linguistics, medical semantics, and their effects on physicians' decisions. In 1994 she and Eric Topol published an article entitled "Semantic Ambiguity, the Non-Nosology and Myocardial Infarction" (*Journal of Clinical Epidemiology*, 1994;47, pp. 441-446). She has authored and coauthored over 50 scientific articles, reviews, and textbook chapters and serves as a medical reviewer for several journal editors (as a referee for submitted papers). She has just been named Staff Editor for the *Journal of Electrocardiology*. Elena is a freelance medical editor and translator (English <-> Spanish; Italian -> English; Italian -> Spanish). She lives in Weston, Florida. Contact: Elena@TranslatingMedicine.net.

Eric J. Topol, M.D. is Chief Academic Officer of The Cleveland Clinic Foundation, Provost of the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Chairman of the Department of Cardiovascular Medicine and Professor of Medicine and Genetics. He is Program Director for the NIH supported Specialized Center of Clinically Oriented Research (SCCOR) on the molecular basis of coronary artery disease. His work on genomics led to the discovery of the first mutation (MEF2A deletion) inducing coronary disease and heart attack.

Dr. Topol has been elected to the Institute of Medicine of the National Academy of Sciences, the American Association of Physicians, the American Society of Clinical Investigation, and the Johns Hopkins Society of Scholars. He holds numerous other titles and pioneer awards.

Dr. Topol serves on the editorial board for many medical journals, has edited 18 books, and has over 900 original publications.

What is a nursing home?

An increase in the elderly population of the US has resulted in an increasing number of facilities to care for those who are either chronically ill or can't be cared at home by members of the immediate family. The needs of the elderly vary from simply a place to live for those who are still capable of carrying out their basic activities of daily living in the company of others, to those who require nursing and medical care on a daily or intermittent basis. In between these two extremes of functionality a wide variety of residential assisted living facilities with varying levels of custodial or medical assistance have sprung throughout the nation. There is a tendency to use the term "Nursing Home" as a catch-all appellation.

What is really a nursing home? A nursing home is a healthcare organization with inpatient beds and an organized professional staff that provides continuous nursing and other health related, psychosocial and personal services for residents who are not in an acute phase of illness, but who require continued care on an inpatient basis. The fact that a nursing home provides a broad range of services and levels of care - ranging from skilled nursing care to custodial care - is what contributes to the overall confusion. Be aware that nursing homes are accredited by the Joint Commission on Accreditation of Healthcare Organizations, like any other hospital or healthcare institution.

For the sake of completeness, a **skilled nursing facility (SNF)** is one where a physician supervises each patient's care which is given on a continuous basis by nursing personnel skilled in a particular medical area i.e., respiratory, orthopedics, etc. SNFs were previously called **extended care facilities**. In addition, there are also **convalescent centers**, which are a form of SNF for patients recovering from a severe or debilitating illness or injury.

Atherothrombosis- A Clinical Overview for Translators and Interpreters

by Rafael A. Rivera

The human heart is an extraordinary organ. It starts beating in utero and continues incessantly throughout a person's entire life. To do so it needs a constant supply of oxygen and nutrients which is normally delivered through its coronary arteries - so called because they encircle the heart like a crown or a wreath. The most common cause of interference with coronary blood flow is a process called **atherosclerosis**, in which a steady growth and expansion of a porridge-like material made up of fats, fibrous tissue, calcium and a variety of cellular elements called **atheroma** is deposited in the wall of coronary vessels. This process leads to hardening called sclerosis - **athero / sclerosis** - and progressive obstruction. The atheromatous build-ups, also known as plaques, can break apart and bleed which forms a clot and further reduces the already compromised flow of blood. The combination of atheroma and clot formation is what is known as **atherothrombosis**. When too little blood reaches any living human tissue this is called **ischemia**, reduced or insufficient blood flow - in this case the heart muscle - thus, **cardiac ischemia** or **ischemic heart disease**. Poor circulation leads to poor function of the heart muscle which, if not improved or restored, leads to further damage and death of tissue. Cardiac cells do not self-regenerate, cell loss is permanent.

Please note that for practical purposes **arterio / sclerosis** and **athero / sclerosis** refer to the same disease, except that **atherosclerosis** identifies the disease process precisely whereas **arteriosclerosis** is only a generic description of hardening of the arteries.

The process of **atherosclerosis** and **atherothrombosis**, as simply described above for the heart, is taking place throughout the entire human vascular system - most importantly in the **brain** and the **lower extremities**. I will enter into some detail with atherothrombosis of the heart, known as **coronary heart disease (CHD)** followed by **cerebrovascular disease (CVD)** known as **stroke** and then atherothrombosis of lower extremities known as **peripheral arterial disease (PAD)**.

CORONARY HEART DISEASE (CHD)

When cardiac ischemia occurs normal functioning fails and

the result is shortness of breath or chest pain of heart origin, called **angina** - typically brought on by exertion and relieved by rest. If the episode results from a significant obstruction and is associated with actual death of heart muscle tissue, this is what we call a **myo/cardial** (heart muscle) **infarction (death from loss of blood supply)** - a typical heart attack.

WHAT ARE THE RISK FACTORS FOR CHD?

Risk factors are behaviors or medical conditions that increase the chances of developing a disease. For CHD there are certain factors that **can't** be modified: **age** - 45 and older for men; 55 and older for women, and a **family history** of heart disease - father or brother diagnosed before age 55, or mother or sister diagnosed before age 65.

The majority of well known associated factors **can** be modified: **cigarette smoking, high blood pressure, high blood cholesterol, excess weight / obesity, physical inactivity and diabetes**. Whereas these factors have been recognized and treated as separate entities, the current thinking is that at least 4 of them - high cholesterol, high blood pressure, obesity and diabetes - seem to be interrelated in most instances. The aggregation of these basic **measurable risk factors** - recently coined as the "**metabolic syndrome**" - pulls them together simply as follows: a higher than normal cholesterol, a higher than normal fasting blood sugar, a higher than normal blood pressure and a larger than expected waist circumference.

Cholesterol The Framingham Heart Study (FHS) - the longest, most comprehensive study of heart disease in the world, ongoing since 1948 in the town of Framingham, Massachusetts, under the direction of the National Heart Institute, as well as other well known studies, have established the link between high cholesterol and CHD. Moreover, the use of the remarkable cholesterol lowering medications known as the **statins** (see Caduceus ATA, Spring 2004 issue) has shown conclusively that a lowering of total cholesterol reduces the risks of CHD, the need for bypass surgery or angioplasty or dying of CHD-related causes.

In September 2004 the results of a landmark multinational

study - the Interheart Study - were published. Over 27,000 subjects in 52 countries that represented all continents of the world who had sustained a proven first heart attack were matched with appropriate controls. The number one risk factor found after 10 years was the ratio of good and bad cholesterol followed very closely by smoking.

Excess weight and obesity are today considered by many the number one health risk in the US. Two-thirds of American are overweight, 50% are obese; alarmingly, 15% of children are already overweight and the incidence of childhood diabetes is rising. Obesity is the forerunner for diabetes and hypertension which leads to CHD.

Stress and anger are well known risk factors for CHD. An anger temperament per se increases more than two-fold the likelihood of CHD.

HOW IS THE DIAGNOSIS OF CHD CONFIRMED?

The history of chest pain or shortness of breath on exertion relieved by rest leads to one or more of the following:

chest x-ray - which will show variations in size and shape of the heart.

electrocardiogram (ECG or EKG) - a heart tracing, the graphic recording of the electrical activity of the heart, can show disturbances of heart rhythm, size of heart chambers, areas of damage to the heart muscle.

stress test - also known as a **treadmill test**, shows the heart at work against progressive resistance induced by changes in speed and incline of the moving treadmill. While a regular stress test is being performed, radioactive thallium injected in an arm vein shows its presence throughout the heart identifying areas that lack blood flow or are damaged. The addition of this **nuclear scan** makes the test a **thallium stress test**.

coronary angiography (or arteriography) - a catheter (fine tube) is threaded through an arm or a leg into the heart and positioned at the coronary vessels where a dye is injected that will show the coronaries on a video as the heart pumps. The film is called an **angiogram** or **arteriogram**.

intracoronary ultrasound - this test uses a catheter that

can measure blood flow. It creates a picture of the coronaries that shows thickness and character of the artery wall.

PERTINENT BLOOD TESTS

Cholesterol, triglycerides, blood glucose, general panel of serum chemistries.

CRP - C-reactive protein in blood, a non-specific indicator of inflammation, is currently thought to play a significant role in the process of atherosclerosis. It is elevated in other inflammatory processes. Normally there is no CRP in blood.

Homocysteine - elevated blood levels of this amino acid have been associated with an increased incidence of CHD, stroke and occlusive disease of other arteries. A genetic defect called **homocystinuria** in which large quantities of homocysteine are excreted in the urine leads to early death from generalized occlusive disease.

HOW IS CHD TREATED?

There are three main types of treatment: lifestyle changes, medications, and, for advanced atherosclerosis, special procedure to open obstructed coronaries.

Lifestyle

It follows from the risk factors mentioned above that six key steps can help prevent or control CHD: stop smoking cigarettes, loose weight, become physically active, lower high blood pressure, lower elevated cholesterol and manage diabetes. Lets take each one separately.

Cigarette smoking - there is no safe way to smoke. Low tar and low nicotine may reduce the risk for lung cancer but not for CHD.

High blood pressure - also known as **hypertension**, usually has no symptoms. Once developed, it typically lasts a lifetime and, if uncontrolled, may lead to heart disease, kidney disease and stroke. A healthy BP lies around 120/80. The higher the BP the worse the possible consequences.

High blood cholesterol - Normally the body makes all the cholesterol it needs. Excess saturated fats and cholesterol in

the diet contributes to atherosclerosis.

Cholesterol travels in packages called lipoproteins. There are two main types of **lipoproteins** that affect the risk for CHD: **low-density lipoprotein (LDL)**, also called "**bad cholesterol**", which causes the deposits in blood vessels and the **high-density lipoproteins (HDL)**, also called "good cholesterol" which helps remove cholesterol from the blood. It follows that it is important to have a low level of LDL and a high level of HDL.

Overweight and obesity - currently at epidemic proportions in the United States. **A simple tip: the risk of heart disease increases if weight circumference is greater than 35 inches for women and 40 inches for men.**

Physical activity - already mentioned and now reinforced. It is one of the best ways to help prevent and control heart disease. It can lower bad cholesterol and raise good cholesterol, lowers blood pressure, increases energy and elevates mood

Diabetes - diabetes occurs when the hormone insulin, normally made in the pancreas, is either not available in sufficient quantities or the insulin that is available is not used effectively.

Stress management - most cardiac rehabilitation programs have a stress management component that includes yoga and meditation.

MEDICATIONS

Statins: medications known collectively as the "statins" (pravastatin, lovastatin, simvastatin and others) have demonstrated the capacity to significantly reduce cholesterol levels, resulting in reduced morbidity and mortality from CHD. They are the only medications that can be said to have a primary influence on the cause of CHD, the atherosclerotic plaque, by reducing cholesterol formation in the liver. Statins may well have other beneficial effects such as maintaining the stability of the atheromatous plaque, so that bleeding and clot formation do not come about. Otherwise, most other medications are used to relieve symptoms associated with CHD.

Nitroglycerin tablets are used sublingually during an

attack of angina because of their immediate **vasodilating (opening up)** action on the coronaries. Other longer acting nitrates are used.

Aspirin is prescribed to be taken on a daily basis by CHD patients because of its mild anticoagulant effect secondary to a reduction in platelet adhesiveness and clot formation. A more potent anti-platelet medication often prescribed is (Clopidogrel-Plavix®).

Digitalis helps the heart contract better, it is used when the heart's pumping action has been weakened. It also slows some fast heart rhythms.

ACE (angiotensin converting enzyme inhibitor) medications stop the production of a chemical produced by the body that narrows blood vessels. It is also used for hypertension and damaged heart muscle.

Beta blockers slow the heart and make it beat with less force, lowering blood pressure and making the heart work less hard. They are used for high blood pressure, chest pain and to prevent a repeat heart attack.

Calcium channel blockers relax blood vessels, are used for high blood pressure and angina.

Diuretics, also known as "**fluid pills**" or "**water pills**", decrease excess fluid in the body and are used for high blood pressure and heart conditions.

Thrombolytic agents, also known as "**clot busting**" drugs, are given during a heart attack to dissolve a blood clot in a coronary artery and restore flow. They must be given promptly after symptoms begin, usually within 1 hour after the onset of symptoms.

INVASIVE THERAPEUTIC PROCEDURES

Coronary angioplasty and placement of stent - In this procedure a catheter is threaded into the narrowed portion of the coronary vessel. The catheter has a tiny balloon at its tip which can be inflated and deflated to stretch and open the artery, thus improve the flow. The balloon is deflated and the catheter removed. Following the stretching and opening doctors now insert a permanent stent to maintain patency in the previously narrowed area. The stent is an expandable wire mesh coated with chemicals to prevent the

new growth of atheromatous plaque over it.

Atherectomy - A specially equipped catheter is threaded into the narrowed coronary where thin strips of plaque are shaved and removed.

Laser angioplasty - A catheter with a laser tip can be threaded into the artery and the plaque vaporized. The procedure may be used alone or along with balloon angioplasty.

SURGERY

Coronary artery bypass graft (CABG) - also known as "**bypass surgery**", this procedure uses a **segment of vein** from the leg which is attached above and below the blocked area, thus creating a "bypass" around the blocked portion of the vessel. A **mammary artery (or both)** is often disconnected from its normal course and brought to the distal (far) end of the blocked coronary or coronaries. Technical advances now make it possible to have "**beating heart**" **coronary surgery** without the need for extracorporeal cardiopulmonary assistance.

It is important to understand that these procedures relieve CHD symptoms by relieving the coronary obstructions but do not cure the basic disease process. Lifestyle changes must still be followed and medications continued.

STROKE

The atherothrombotic process in arteries leading into the brain is the same as that within the coronaries. The brain's circulatory cut-off leads to a **stroke**, which could well be called a "**brain attack**", equivalent to a heart attack. Insufficient circulation (**ischemia**) to the brain does not lead to pain as it does in the heart, but to transitory neurologic episodes (less than 24 hours) that resemble a stroke but do not materialize into a full blown **cerebrovascular accident (CVA)** - the more medical term for a stroke. These **transient ischemic attacks**, or TIAs, also called **mini-strokes** or **little strokes** are the clinical brain equivalents of cardiac angina.

The risk factors for stroke are the same as for heart attacks. Medical management includes all the lifestyle interventions mentioned for CHD, the use of cholesterol lowering statins and reduction of platelet adhesiveness.

Surgical interventions are limited due to technical difficulties. A **carotid endarterectomy**, the surgical removal of atheromatous plaques, is the mainstay of surgical stroke prevention. More recently carotid angioplasty and placement of stent have been tried.

PERIPHERAL ARTERIAL DISEASE (PAD)

Peripheral arterial disease is the symptomatic presence of atherothrombosis in the medium to large size arterial tree of the lower extremities. Like in the heart, insufficient blood flow upon exertion (walking) produces pain which is called **claudication** instead of angina. Otherwise, like angina, it is pain on exertion relieved by rest. The treatment approach is similar both medically and surgically.

References

www.nhlbi.nih.gov

www.atherothrombosis.org

www.theheart.org

www.ncbi.nih.gov

ATA Caduceus, Spring 2004

multiple other Internet sites are available



How many of the following names of diseases are synonyms of syphilis?

- a. Bad blood
- b. Spanish pox
- c. Lues venerea
- d. French pox
- e. Great pox

Answers found on page 38.

Respiratory Etiquette: What Is It?

by Patricia Thickstun

The new catchphrase in healthcare circles is "Respiratory Etiquette." It refers to taking common-sense steps to prevent the spread of germs from person to person.

Each year the cold and flu season brings millions of cases of flu, 1 billion common colds, and millions of strep throats to Americans. Do you want to reduce your risk of catching colds, getting the flu, or coming down with a strep throat this winter? Then learn how hand-washing and covering coughs and sneezes can effectively prevent the spread

What are respiratory infections?

In a hospital or clinical setting, interpreters' clients may be infected with respiratory infections caused by viruses (influenza, measles, SARS, or the common cold) or bacteria (diphtheria, whooping cough, pneumonia, strep, tuberculosis).

Who is susceptible to respiratory infections?

Everyone who breathes air exhaled by another person is at risk for acquiring a respiratory infection. Most viral respiratory infections such as colds and flu occur during the fall and winter. Although you may associate cold and flu season with cold weather, this seasonal variation may be linked to the times when people spend more time indoors. In Hawaii, where the weather is never cold, flu season starts a few weeks earlier than it does on the mainland.

How are respiratory infections spread?

The organisms that cause respiratory infections are spread from person to person by droplets that are produced when an infected person coughs, sneezes, or talks. These infectious respiratory droplets may stay in the air for several hours, and anyone who inhales them may become infected. As some viruses can survive up to 48 hours on nonporous surfaces, such as a telephone receiver, computer keyboard, or door handle, they may be spread by contaminated hands. For example, you may become infected if you touch a virus-contaminated surface with your hands and then touch your mouth, nose, or eyes with those contaminated hands.

How do I protect myself from respiratory infections?

Practicing Respiratory Etiquette is the best way to prevent the spread of germs. Vaccines are available for some

respiratory infections, but no vaccine is 100% effective. And this year, with the influenza vaccine shortage, we need to explore alternatives to immunization.

How do I practice Respiratory Etiquette?

Respiratory Etiquette is based on a combination of information from infectious disease epidemiology and the common-sense advice given by generations of mothers.

Hand washing is the best way you can prevent catching most germs and it is also the best way to prevent transmitting germs to other people. Use soap and warm running water to scrub your hands for at least 15-20 seconds. Dry your hands, preferably with a disposable towel — hand dryers are pleasant to use, but do not remove bacteria or viruses from wet hands. Use an alcohol-based hand sanitizer when you don't have access to soap and running water.

To prevent catching germs from others:

- Wash your hands before eating, or touching your eyes, nose, or mouth.
- Wash your hands after using the toilet, taking out the trash, changing a diaper, handling raw food, or using a tissue for a cough or sneeze.

To protect others from catching your germs

- Don't come to work sick. Stay home if you have a cough and fever.
- Cover your mouth and nose with a disposable tissue every time you sneeze, blow your nose, or cough.
- Always wash your hands after sneezing, blowing your nose, coughing, or after touching used tissues.

Workplace issues

At your next medical appointment with your family practice physician or internist, make sure your medical record indicates your profession and let your physician know about the conditions in your workplace and the clients you serve. Ask about the immunizations you need for your particular work setting and be aware of the schedule for booster shots. Contact the infection control

department in your workplace for an orientation to infection control in your facility and special health and safety issues in your workplace.

Finally, share your knowledge of handwashing and respiratory etiquette with your family, friends, and coworkers to make this cold and flu season as healthy as possible for everyone.

Dr. Thickstun received a doctorate in Immunology from the Université de Pierre et Marie Curie (Paris VI) for research on tuberculosis and worked as a hospital epidemiologist and infection control practitioner at the Texas Center for Infectious Disease, a tuberculosis hospital in San Antonio, Texas. She was a tuberculosis epidemiologist and also served as the Director of Language Services at the Texas Department of Health. An independent French-English technical translator for 25 years and medical interpreter for the past 10 years, she now works in the field of HIV and STD prevention, public health policy, and education for a nonprofit organization in Austin, Texas. She always carries disposable tissues and alcohol-based hand sanitizer.



MEDICAL SPECIALTIES

Title	Abbreviation
Allergists and Immunologists	A & I
Anesthesiologists	Anes
Colon and Rectal Surgeons	CRS
Dermatologists	D
Emergency Medicine Physicians	EM / EP
Family Physicians	FP
Internists	IM
Medical Geneticists	MG
Neurological Surgeons	NS
Neurologists	N
Nuclear Medicine Specialists	NuM
Obstetricians and Gynecologists	ObG
Ophthalmologists	Oph
Orthopedic Surgeons	OrS
Otolaryngology	Oto
Pathologists	Path
Pediatricians	Ped
PM & R Specialists (Physiatrist)	PMR
Plastic Surgeons	PIS
Preventive Medicine Specialists	PrM
Psychiatrists	Psych
Radiological and Radiological Physicists	Rad
Surgeons	S
Thoracic Surgeons	TS
Urologists	U

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LIFE IN THE US IS HAZARDOUS TO IMMIGRANT'S HEALTH.

A new study from Harvard Medical School found that obesity is relatively rare in the foreign born until they have lived in the United States. The study published in the most recent issue of the Journal of the American Medical Association shows a number of negative effects of life in the US, and obesity is one of the major side effects said the authors. The link between obesity and number of years in the US was found higher in white Hispanics and Asian immigrant groups, not so much in foreign-born blacks. Only 8% of immigrants who had lived in the US for less than a year were obese, but that jumped to 19% among those who had been here for at least 15 years. That compared to 22% of US-born residents surveyed. The results are worrisome particularly since immigrants often face a language barrier and other obstacles to good health care.

Glossary Of Terms Used In Clinical Research

Italian Translation

by Marina Callegari, MD and Gilberto Lacchia, MD

English	Italian	Definition
ADME	ADME	Assorbimento, Distribuzione, Metabolismo ed Eliminazione/Escrezione di un farmaco.
ADMISSION CRITERIA	CRITERI DI AMMISSIONE	Criteria utilizzati per selezionare la popolazione oggetto di un particolare studio clinico. Tutti gli studi devono avere una lista di criteri (di inclusione e di esclusione) che i pazienti devono soddisfare per essere inseriti nello studio.
ADVERSE DRUG EVENT (AE)	EVENTO AVVERSO	Qualsiasi evento non voluto che si verifica durante uno studio clinico, considerato o meno in rapporto al prodotto o ai prodotti in studio. Tutti gli eventi avversi devono essere notificati all'agenzia o alle agenzie regolatorie.
ADVERSE DRUG REACTION (ADR)	REAZIONE AVVERSA A UN FARMACO	Un evento avverso non voluto (vedi sotto) che si verifica durante uno studio, che è stato valutato e per il quale è stata stabilita una relazione causale con il prodotto o i prodotti in studio.
AMENDMENT	EMENDAMENTO	Documento che descrive le variazioni o le aggiunte al protocollo di uno studio clinico.
BASELINE	BASALE	Momento iniziale di uno studio clinico durante il quale si eseguono misurazioni come riferimento alle successive misurazioni o osservazioni.

BIAS	BIAS	Tendenza sistematica di un qualsiasi fattore associato a disegno, gestione, analisi e valutazione dei risultati di uno studio clinico che fa sì che la valutazione dell'effetto di un trattamento sia diversa dalla realtà. Il bias causato da un'erronea gestione dello studio è detto "operativo". Le altre cause di bias citate sopra inducono un bias "statistico". Anche se nella maggior parte dei casi è involontario, il bias può essere indotto anche volontariamente.
BIOAVAILABILITY	BIODISPONIBILITÀ	Velocità e grado con cui un farmaco è assorbito o disponibile nella sede di trattamento nell'organismo.
BIOAVAILABILITY STUDIES	STUDI DI BIODISPONIBILITÀ	Studi effettuati con diverse formulazioni di un farmaco per valutare se i livelli ematici, la tempistica di questi livelli e l'eliminazione del farmaco dall'organismo sono gli stessi o sono diversi tra le due formulazioni.
BIOEQUIVALENCE	BIOEQUIVALENZA	Si tratta della base scientifica per il confronto di un farmaco generico e di una specialità. Perché siano considerati bioequivalenti, la biodisponibilità di due prodotti non deve differire significativamente quando i due prodotti vengono somministrati in studi che utilizzano lo stesso dosaggio in condizioni paragonabili.
BIOLOGIC LICENSE APPLICATION (BLA)	BIOLOGIC LICENSE APPLICATION (BLA)	Domanda iniziale per ottenere un'autorizzazione all'immissione in commercio di un agente biologico negli Stati Uniti.
CARRYOVER EFFECT	EFFETTO CARRYOVER	Qualsiasi effetto di un farmaco che si protrae oltre il periodo della terapia.
CASE REPORT/RECORD FORM (CRF)	SCHEDA RACCOLTA DATI (CRF)	Modulo ideato specificamente per ciascun protocollo al fine di raccogliere i dati su ogni soggetto inserito in uno studio clinico. Il CRF può essere un unico modulo o tutto l'insieme di moduli (spesso presentati sotto forma di opuscolo).

CLINICAL HOLD	CLINICAL HOLD (SOSPENSIONE CLINICA)	Norma imposta da un'autorità regolatoria prima (per esempio in caso di carenze nella domanda per un nuovo farmaco sperimentale) o durante uno studio clinico (per esempio in seguito a nuove scoperte o all'acquisizione di nuovi dati).
CLINICAL PROTOCOL	PROTOCOLLO CLINICO	Insieme specifico di obiettivi e procedure che definiscono il corso dello studio clinico.
CLINICAL STUDY AGREEMENT	ACCORDO DI STUDIO CLINICO	Documento firmato dallo sperimentatore e dallo sponsor che definisce gli accordi sulle responsabilità e sulle questioni finanziarie oltre alla delega/distribuzione delle responsabilità stesse.
CLINICAL STUDY REPORT (CSR)	RAPPORTO DI STUDIO CLINICO	Riassunto dei risultati clinici e statistici di un determinato protocollo.
CLINICAL TRIAL APPLICATION (CTA)	CLINICAL TRIAL APPLICATION (CTA) (RICHIESTA DI STUDIO CLINICO)	Il termine CTA attualmente viene utilizzato in Canada o quando ci si riferisce a domande simili in nazioni non anglosassoni; si noti che le procedure possono essere simili ma non sono identiche. Vedi IND.
CLINICAL TRIAL EXEMPTION (CTX)	CLINICAL TRIAL EXEMPTION (CTX)	Termine utilizzato in Australia e UK. Vedi IND e CTA.
CO-INVESTIGATOR	SPERIMENTATORE ASSOCIATO	Significato variabile: a) medico o una persona qualificata che assiste lo sperimentatore principale (PI, Principal Investigator) nello studio clinico; b) medico che condivide pienamente la responsabilità dello sperimentatore principale.
COMMON TECHNICAL DOCUMENT (CTD)	DOCUMENTO TECNICO COMUNE	Nuova domanda globale per l'autorizzazione all'immissione in commercio.
CONCOMITANT MEDICATION	FARMACI CONCOMITANTI	Qualsiasi farmaco assunto dal paziente oltre al farmaco in studio.

CONTRACT	CONTRATTO	Documento firmato dallo sperimentatore e dallo sponsor che definisce gli accordi sulle responsabilità e sulle questioni finanziarie oltre alla delega/distribuzione delle responsabilità stesse. Il documento deve essere firmato prima dell'inizio dello studio clinico.
CONTROLLED CLINICAL TRIAL	STUDIO CLINICO CONTROLLATO	Uno studio strutturato in modo da confrontare il o i prodotti in studio con un placebo o con un'altra terapia di cui è nota l'efficacia nei confronti della malattia.
CROSS-OVER DESIGN	DISEGNO CROSS-OVER	Uno studio strutturato in modo che l'intervento valutato e quello di controllo siano applicati a ciascun soggetto in momenti successivi, facendo in modo che ogni soggetto diventi il controllo di sé stesso. L'ordine della sequenza solitamente è casuale.
DATA SAFETY MONITORING COMMITTEE/BOARD (DSMB)	DATA SAFETY MONITORING COMMITTEE/BOARD (COMITATO DI MONITORAGGIO SULLA SICUREZZA E SUI DATI)	Comitato indipendente, composto da esperti in ricerca clinica spesso affiancati da rappresentanti della comunità, che revisiona i dati nel corso di uno studio clinico per garantire che i partecipanti non siano esposti a rischi eccessivi. Un comitato per il monitoraggio sulla sicurezza può ordinare la sospensione di uno studio clinico se esistono dubbi relativi alla sicurezza o se gli obiettivi dello studio sono stati raggiunti.
DECLARATION OF HELSINKI	DICHIARAZIONE DI HELSINKI	Rappresenta uno standard per la protezione dei diritti dei soggetti di studi clinici.
DOSE-RANGING STUDIES	STUDI DI DOSAGGIO	Sono progettati per valutare l'effetto e/o la sicurezza delle diverse dosi di un farmaco in studio.

DOUBLE-BLIND	DOPPIO CIECO	Studio strutturato in modo che né il paziente, né lo sperimentatore sappiano quale gruppo dello studio ha ricevuto il placebo e quale il principio attivo. Si parla di "triplo cieco" quando anche chi valuta i risultati (per esempio chi effettua l'analisi statistica) non è a conoscenza del gruppo a cui appartengono i soggetti.
DROP OUT	DROP OUT	a) Soggetto che non completa il protocollo dello studio clinico; b) l'uscita da uno studio clinico prima della sua conclusione.
ELIGIBLE PATIENT	PAZIENTE ELEGGIBILE	Soggetto che soddisfa i criteri di inclusione e non rientra nei criteri di esclusione.
ERB	ERB	Ethics Research Board (comitato etico sulla ricerca) vedi IRB.
EVALUABLE PATIENT	PAZIENTE VALUTABILE	Soggetto che può essere inserito nell'analisi dei dati di uno studio clinico poiché si è attenuto alle prescrizioni del protocollo o perché qualsiasi deviazione dallo stesso non aveva rilevanza ai fini dell'analisi.
EXCLUSION CRITERIA	CRITERI DI ESCLUSIONE	Un insieme di criteri, ciascuno dei quali escluderebbe il paziente dalla partecipazione ad uno studio clinico.
FOOD AND DRUG ADMINISTRATION (FDA)	FOOD AND DRUG ADMINISTRATION (FDA)	Agenzia federale statunitense responsabile della sicurezza degli alimenti, dei farmaci e dei dispositivi medici.
GOOD CLINICAL PRACTICE (GCP)	BUONA PRATICA CLINICA (GCP)	Standard secondo il quale gli studi clinici vengono strutturati, realizzati e relazionati.
INDEPENDENT ETHICS COMMITTEE (IEC)	COMITATO ETICO INDIPENDENTE (CEI)	Vedi IRB

INFORMED CONSENT (IC)	CONSENSO INFORMATO	a) Assenso alla partecipazione ad uno studio clinico concesso dopo che un potenziale partecipante abbia preso visione di tutte le informazioni disponibili sulla terapia, compresa una spiegazione dei potenziali benefici, rischi, disturbi e delle altre opzioni terapeutiche oltre che dei propri diritti e responsabilità; b) il documento di consenso informato.
INSTITUTIONAL REVIEW BOARD (IRB)	COMMISSIONE DI REVISIONE DELL'ISTITUZIONE (IRB)	Organismo indipendente (comitato di revisione, del centro di ricerca, regionale, nazionale o sopranazionale), costituito da medici, scienziati e membri senza formazione scientifica, con la responsabilità di garantire i diritti, la sicurezza e il benessere dei soggetti che partecipano a uno studio clinico e di offrire una garanzia pubblica di questa protezione con, tra l'altro, la revisione e l'approvazione del protocollo clinico, la dichiarazione di idoneità degli sperimentatori e delle strutture e quella dei metodi e dei materiali utilizzati per ottenere e documentare il consenso informato dei soggetti da inserire nello studio.
INTERNATIONAL CONFERENCE ON HARMONIZATION (ICH)	CONFERENZA INTERNAZIONALE SULL'ARMONIZZAZIONE	Progetto unico che raccoglie le autorità regolatorie europee, giapponesi e statunitensi, oltre ad esperti dell'industria farmaceutica, per discutere di aspetti tecnici e scientifici sulla registrazione dei prodotti farmaceutici.
INVESTIGATIONAL NEW DRUG APPLICATION (IND)	INVESTIGATIONAL NEW DRUG APPLICATION (IND)	Richiesta per ottenere l'autorizzazione a sperimentare farmaci sull'uomo (volontari sani e pazienti) (USA).
INVESTIGATOR	SPERIMENTATORE	Medico o persona qualificata che esegue uno studio clinico.

INVESTIGATOR'S (DRUG) BROCHURE (I[D]B)	DOSSIER PER LO SPERIMENTATORE	Raccolta di tutte le informazioni aggiornate note pertinenti al prodotto in sperimentazione, compresi i dati chimici, farmaceutici e tossicologici anche di studi precedenti, se disponibili.
MARKETING AUTHORIZATION APPLICATION	DOMANDA DI AUTORIZZAZIONE ALL'IMMISSIONE IN COMMERCIO	Termine generico che indica la domanda per ottenere l'autorizzazione alla commercializzazione utilizzato prevalentemente nell'Unione europea, equivalente all'NDA (New Drug Application) negli USA. Le informazioni presentate devono contenere i dati chimici, farmaceutici, biologici e clinici.
MAXIMUM TOLERATED DOSE (MTD)	DOSE MASSIMA TOLLERATA (DMT)	La massima dose che si può somministrare senza provocare effetti collaterali inaccettabili.
MONITOR	MONITOR	Persona che controlla e riferisce i progressi di uno studio clinico e ne verifica i dati. Di solito sinonimo di CRA (Clinical Research Associate)
MULTICENTER TRIAL	STUDIO MULTICENTRICO	Studio clinico condotto secondo un unico protocollo, in più di un centro di ricerca e da più di uno sperimentatore.
NEW DRUG APPLICATION (NDA)	NEW DRUG APPLICATION (NDA)	Domanda iniziale per ottenere l'autorizzazione alla commercializzazione negli Stati Uniti.
NO OBSERVABLE EFFECT LEVEL (NOEL)	LIVELLO SENZA EFFETTO OSSERVABILE (NOEL, NO OBSERVABLE EFFECT LEVEL)	Dose massima senza tossicità misurabile di un farmaco sperimentale somministrato a un animale.
OPEN-LABEL STUDY	STUDIO IN APERTO	Studio nel quale sia lo sperimentatore che il soggetto conoscono il piano posologico, il farmaco e le dosi.
PHASE I STUDY	STUDIO DI FASE I	Valutazione iniziale di un farmaco sull'uomo per stabilirne la sicurezza e la tollerabilità. Solitamente questi studi vengono condotti su volontari sani ad eccezione dei farmaci che non si possono somministrare in modo sicuro su questi soggetti (per esempio i farmaci antineoplastici).

PHASE II STUDY	STUDIO DI FASE II	Valutazione iniziale di un farmaco su pazienti per stabilire se esso abbia l'effetto desiderato.
PHASE III STUDY	STUDIO DI FASE III	Studi su larga scala per aumentare l'esperienza sull'efficacia e il profilo di sicurezza relativo agli effetti collaterali. Sono studi solitamente randomizzati e controllati che mettono a confronto una terapia esistente con il prodotto in studio.
PHASE IV STUDIES	STUDI DI FASE IV	Studi effettuati per acquisire una maggiore esperienza sul farmaco al fine di sostenere nuove richieste di indicazioni e ottenere ulteriori informazioni di confronto con altri farmaci in commercio.
PIVOTAL STUDY	STUDIO CARDINE	Studio sottoposto a un monitoraggio rigoroso che fornisce dati fondamentali per le autorità normative sull'efficacia e la sicurezza. Se gli studi non soddisfano i criteri di buona pratica clinica e di monitoraggio intensivo, può accadere che vengano considerati "studi di supporto" da parte delle autorità regolatorie e in tal caso non possono essere utilizzati per sostenere affermazioni relative all'efficacia, mentre i dati relativi alla sicurezza sono accettati.
PLACEBO	PLACEBO	Sostanza inattiva che ha lo stesso aspetto, consistenza, odore e gusto del farmaco attivo (verum).
PROSPECTIVE STUDY	STUDIO PROSPETTICO	I pazienti vengono reclutati secondo criteri definiti da un protocollo prima dell'inizio dello studio. L'intervento e i risultati non sono noti all'inizio dello studio stesso.
RANDOMIZATION	RANDOMIZZAZIONE	Procedimento che riduce la probabilità di un errore procedurale per mezzo dell'assegnazione casuale dei soggetti ai gruppi di trattamento.

RESEARCH ETHICS BOARD (REB)	RESEARCH ETHICS BOARD (REB) (COMITATO ETICO DI RICERCA)	vedi COMMISSIONE DI REVISIONE DELL'ISTITUZIONE
SERIOUS ADVERSE EVENT (SAE)	EVENTO AVVERSO GRAVE	Qualsiasi evento avverso che, indipendentemente dal livello di dose, sia fatale, a rischio per la vita o invalidante; porti al ricovero di un paziente o al prolungamento della degenza di un paziente già ricoverato; determini la comparsa di un difetto congenito.
SOURCE DATA	DATI ORIGINALI	Tutte le informazioni contenute nella documentazione originale o in copie autenticate della documentazione originale relativa ai riscontri clinici, alle osservazioni e alle altre attività di uno studio clinico necessarie per la ricostruzione e la valutazione dello studio stesso. I dati originali sono contenuti nei documenti originali (in originale o in copie autenticate)
SOURCE DOCUMENTS	DOCUMENTI ORIGINALI	Documenti, dati e referti originali (cartelle cliniche, risultati di esami di laboratorio, ecc.).
STATISTICAL SIGNIFICANCE	SIGNIFICATIVITÀ STATISTICA	La probabilità che qualsiasi risultato di uno studio si sia verificato semplicemente per caso. Il livello di significatività dipende dal numero di soggetti e dalla grandezza delle differenze osservate.
SUBJECT	SOGGETTO, PARTECIPANTE	Essere umano (paziente o volontario sano) che partecipa a uno studio clinico.
UNEXPECTED ADVERSE EVENT	EVENTO AVVERSO INATTESO	Evento avverso che in precedenza non era stato riferito (quanto a natura, gravità o incidenza).
WASHOUT PERIOD	PERIODO DI WASHOUT	Periodo che intercorre tra la somministrazione di due terapie attive per eliminare tutti i residui del primo farmaco prima della somministrazione del secondo e ovviare agli effetti da carryover.

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El Dr. Fernando Navarro en la Jornada de Traducción Internacional Rosario, Argentina 2004

Por Andrea Ali

From the Assistant Editor

Last November, the III Congreso de la Lengua Española (Third Congress of the Spanish Language) took place in my hometown: Rosario, Argentina.

Months in advance, the Congress had already elicited great interest. Most attendees were invited by the organizers (the Real Academia Española and the Instituto Cervantes). When attendance tickets for the public became available online in August, they were sold out within a few hours.

Around the Congress in Rosario were also organized several language-related events. One of these was a **Jornada de Traducción Internacional**, where Dr. Fernando Navarro, renowned medical translator and author was a speaker. His lecture is summarized below by medical translator Andrea Ali.

Rosario fue una fiesta. La celebración (en noviembre 2004) del III Congreso Internacional de la Lengua Española y de la Jornada de Traducción Internacional quedará por siempre en la memoria de los que tuvimos la suerte de participar en ambos acontecimientos.

Para los traductores, y en especial los que nos dedicamos a la traducción médica sin ser médicos, contar con la presencia de Fernando Navarro marca un antes y un después en nuestra profesión. Podrá tratarse de una opinión muy subjetiva pero creo no ser la única.

Padre de cuatro hijos (así lo presentaron), médico y traductor, Navarro abrió su ponencia con una pregunta cuya respuesta podrá ser muy obvia para muchos, pero... "*¿Quién debe hacer una traducción médica? ¿Un médico o un traductor?*"

Dada la mayoría de traductores en la audiencia, Navarro optó por contarnos qué espera un médico de una buena traducción. También hay que tener en cuenta que no solo un médico lee una traducción médica, sino que a veces la lee un paciente (un consentimiento informado) o el público

general (un artículo de divulgación). Según Navarro, los puntos más importantes que un traductor debe tener en cuenta al hacer una traducción médica serían:

- **Fidelidad al autor**

1. ¿Qué ha dicho?
"There are four fingers in a hand" ("fingers" does not include the thumb)
2. ¿Qué quiso decir?
"Abnormal *lover* function" (*lover* -"o" and "i" are one next to the other on the keyboard)
3. ¿Qué hubiera querido decir?
"A temperature of a hundred and four" (it is obvious that a conversion is necessary here for those countries using Celsius)

- **Fidelidad al lector**

1. Naturalidad
"Human milk - cow's milk" (leche materna, no humana - leche de vaca)
2. Precisión
"Signos, señales, síntomas, manifestaciones, expresiones" (sin duda son todos sinónimos, pero no en un texto médico)
"Controlar" (un término que debe utilizarse con mucho cuidado y no repetirse como comodín)
3. Claridad
"Verbal autopsy" (cuando la traducción es para un público general es necesario aclarar que se trata de las preguntas que hace el médico a los familiares, amigos o conocidos para poder comprender qué sucedió antes del fallecimiento y poder determinar las causas de la muerte del paciente)
4. Registro
En inglés, "heart disease" es mucho más frecuente que "cardiac disease" o "cardiopathy". En cambio en español, "cardiopatía" es mucho más frecuente que "enfermedad cardíaca" o "enfermedad del corazón".

Una vez explicados estos conceptos básicos, Navarro nos

proporcionó varios ejemplos para traducir y otros ya traducidos para que pudiéramos detectar frases o términos "problemáticos".

A modo de conclusión y en respuesta a la pregunta inicial, para traducir un texto médico no es necesario que el traductor sea médico -sin lugar a dudas, la combinación ideal- pero sí es indispensable que el traductor esté familiarizado con la medicina, lea o estudie y se capacite constantemente en su área de especialización. El traductor capacitado y con recursos cuenta con una poderosa arma que es su "ojo lingüístico", que le permite detectar cuándo un término es un falso cognado, cuándo un término es redundante o cuándo es necesario consultar un diccionario o directamente a un profesional. Como en toda traducción, dudar es la mejor manera de evitar errores.

Rosario fue una fiesta y el Dr. Navarro superó ampliamente nuestras expectativas, tanto en el ámbito profesional como en el personal. Además de excelente médico y traductor, Navarro es un ser humano cálido, amable y humilde. Esperamos ansiosos su regreso y la próxima edición de su diccionario.

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ATA CHRONICLE NEXT MEDICAL ISSUE

The next ATA Chronicle issue focusing on Medical Translating and Interpreting has a submission deadline of June 1, 2005. Those members interested in submitting articles for publications keep this date in mind.

Schiavo case reaches the US Supreme Court

The judicial saga of Terri Schiavo continues. She is the now 40 years old woman from Florida who has been in a persistent vegetative state for proximately 14 years, while her case travels the national judicial scene in the manner previously experienced by the well known cases of Karen Ann Quinlan and Nancy Cruzan some 20 years ago. You may recall that the Schiavo case had progressed through the Florida local courts where the opinion of national experts in medical fields and bioethics who examined the patient had been entered. After lengthy proceedings the Florida State Supreme Court ordered her feeding tube removed. This was the fourth time the husband had obtained a court order to have the feeding tube removed in accordance with the patient's expressed wishes to her husband. She did not, however, leave her wishes expressed legally by means of a living will.

In an unprecedented move the Florida legislature at the behest of Florida governor Jeb Bush hastily passed a law - now known as Terri's Law - blocking the removal of the feeding tube as mandated by the State's high court. The patient's husband sued the Florida governor to have Terri's law overturned. The governor's office appealed to the 2nd District Court of Appeal in Lakeland, Florida, an action which effectively barred the husband from seeking yet another court order to remove his wife's feeding tube. The action of the Florida governor drew immediate criticisms from constitutional scholars who declared this was a blatant violation of the separation of powers and every Floridian's right to privacy to make medical decisions to withhold treatment. As expected, the District Court Chief Judge upheld the husband's right to remove the feeding tube and declared Gov Bush's law - Terri's law - keeping Schiavo alive unconstitutional.

The case has been elevated by the Florida governor to the US Supreme Court for review. Most scholars doubt the highest court will do so. In the meantime the feeding tube is back in for some time to come..

Glosario de Enfermedades por Transmisión Sexual

Por Olga Lucia Mutis de Serna

Este glosario fue utilizado por la autora como parte de su presentación durante el congreso de Toronto.

A, B, C serovars	Serotipos de <i>C. Trachomatis</i> que causan el tracoma	
AMT	Amplificación mediada por transcripción	
Balanitis	Balanitis	Inflammation of the glans, penis or clitoris
BV	Vaginosis bacteriana	Bacterial vaginosis
Chicken pox in children Shingles in adults	Varicela	Painful, inflammatory blisters on the skin that follow the path of individual peripheral nerves.
CMV	Citomegalovirus	Cytomegalovirus. CMV can develop in any part of the body but most often appears in the retina of the eye, the nervous system, the colon or the esophagus
Condyloma Acuminatum	Condiloma acuminado	A projecting warty growth on the external genitals or the anus caused by infection with certain types of the human papillomavirus (HPV).
Conization	Biopsia	Surgery to remove a cone-shaped piece of tissue from the cervix and cervical canal.
Cryosurgery	Criocirugía	Treatment performed with an instrument that freezes and destroys abnormal tissue.
DFA	Prueba directa de los anticuerpos fluorescentes	Direct Fluorescent Antibody
Diathermy	Diatermia, cauterización	The use of heat to destroy abnormal cells.
DICGN	Diplococos intracelulares gramnegativos	
D-K serotypes	Infección genital, respiratoria y ocular causada por <i>C. trachomatis</i>	<i>Chlamydia trachomatis</i> (serotypes D, E, F, G, H, I, J, K). The serotypes D-K may be acquired in neonates from the birth canal, giving rise to inclusion conjunctivitis.
Dyspareunia	Dispareunia	Painful sex.
Dysuria	Disuria	Painful or difficult urination.
EB	Cuerpo elemental extracelular de <i>C. trachomatis</i> .	Elementary body
EBV	Virus Epstein-Barr	A member of the herpes virus family that causes one of two kinds of mononucleosis (the other is caused by CMV). It infects the nose and throat and is contagious.
ELISA	Enzyme-Linked ImmunoSorbent Assay)	A diagnostic test utilizing an enzyme-labeled immunoreactant (antigen or antibody) and an immunosorbent (antigen or antibody bound to a solid support). A positive ELISA test result must be confirmed by another test called a Western Blot.

Envelope	Cubierta	The outer covering of a virus, sometimes called the coat.
Epitope	Epitope	A unique molecular shape or sequence carried on a micro-organism that triggers a specific antibody or cellular immune response.
ETS	Enfermedades de transmisión sexual	Sexually Transmitted Diseases
FC	Floculación: precipitación de una solución en la forma de masas vellosas.	Flocculation.
First episode of herpes	Primer episodio de herpes	The body's first encounter with a particular type of herpes simplex, an event that often produces marked symptoms. There are two types of "first episodes." A primary first episode describes the symptoms that appear in the person who has never been infected with either herpes simplex virus type 1 (HSV-1) or HSV-2 before. It's sometimes called a "true primary." A non primary first episode describes the symptoms that occur in the person who has been infected first with one type of HSV and then later infected with the second.
Fomite	Fómites	An object, such as a towel, bicycle seat, or an article of clothing, that is not in itself harmful, but is able to harbor pathogenic microorganisms and thus may serve as an agent of transmission for an infection.
FTA-ABS	Prueba de absorción de anticuerpos treponémicos por inmunofluorescencia	Fluorescent Treponemal Antibody Absortion
Fungal Infection	Micosis	A range of distinct diseases caused by fungi. Candidiasis, cryptococcosis and histoplasmosis are examples of fungal infections.
GUD	Úlcera genital	Genital Ulcer Disease: Ulcerative lesions on the genitals, usually caused by a sexually transmitted condition such as herpes, syphilis or chancroid.
HHV-6	(Virus de la roseola infantil)	A newly observed agent found in the blood cells (T lymphocytes) of a few patients with a variety of diseases affecting the immune system.
HHV-7		This virus has been identified in the laboratory, but has not been associated with any diseases to date. It infects T-cells, and genetically resembles HHV-6.
HHV-8		A recently recognized virus that has notable homology with several known herpes viruses. Detection of HHV-8 in peripheral blood mononuclear cells or HHV-8 antibody seroconversion is associated with an increased risk of developing Kaposi's sarcoma.
HIV-1	Retrovirus del sida (VIH-1)	Human immunodeficiency virus type 1
HIV-2	VIH-2	Human immunodeficiency virus type 2, a virus closely related to HIV-1 that also leads to immune suppression.
HPV	Virus del papiloma humano	Human Papilloma Virus

IN	Intravenoso	Intravenous
In vitro		Refers to laboratory experiments conducted in cell cultures grown in an artificial environment, for example in a test tube or culture plate.
In Vivo		Refers to studies conducted within humans or animals, in a living, natural environment.
ITS	Infecciones de transmisión sexual	Sexually Transmitted Infections
L1, L2, L3	Serotipos del linfogranuloma venéreo	While other serotypes of <i>C trachomatis</i> are limited to superficial infection of mucous membranes, serotypes L1, L2 and L3 are more invasive and virulent, tending to result in systemic disease.
Latency	Periodo de latencia o incubación	The phenomenon by which disease (such as HSV or HPV) can hide away in the nerve roots in an inactive state, only to reactivate and cause viral shedding or symptoms again
LGV	Linfogranuloma venéreo	Lymphogranuloma inguinale or Lymphopathia venereum is a sexually-transmitted disease caused by <i>Chlamydia trachomatis</i> that causes inflammation and drainage of certain lymph nodes, and destruction and scarring of surrounding tissue.
MHA-TP	Análisis de microaglutinación de anticuerpos contra <i>Treponema pallidum</i>	Microhemagglutination treponemal tests for syphilis
Microbe	Microbio	A microscopic living organism, such as a bacteria, fungus, protozoa or virus.
Micro-IF (MIF)	Microinmunofluorescencia	Micro-immunofluorescence: test used for the detection of IgG, IgA and IgM antibodies to <i>Chlamydia pneumoniae</i> . It is intended for in vitro diagnostic use only.
MRI	Resonancia magnética nuclear (RMN)	(Magnetic Resonance Imaging) -- A procedure that uses a magnet linked to a computer to create pictures of areas inside the body.
Mycosis	Micosis	Any disease caused by a fungus.
Myopathy	Miopatía	Progressive muscle weakness.
NGU	UNG (uretritis no gonocócica)	NonGonococcal Urethritis
NIAID	Instituto nacional de alergia y enfermedades infecciosas	(National Institute of Allergy and Infectious Diseases) -- The federal agency that is responsible for a great deal of the government-sponsored AIDS research. NIAID is a branch of the NIH.
NIH	Institutos Nacionales de Salud	(National Institutes of Health) -- The federal agency responsible for overseeing government-sponsored biomedical research. It is divided into 24 institutes and research centers.
OI	Infecciones oportunistas	Opportunistic Infections -- Infections that occur in persons with weak immune systems due to AIDS, cancer or immunosuppressive drugs such as corticosteroids or chemotherapy. PCP, toxoplasmosis and cytomegalovirus are all examples of OIs.
p.o	por vía oral	per os

PCR	Reacción en cadena de la polimerasa (RCP)	Polymerase Chain Reaction) Test -- A very sensitive test that measures the presence or amount of RNA or DNA of a specific organism or virus (for example, HIV or CMV) in the blood or tissue.
Perinatal Transmission	Transmisión perinatal	Transmission of a pathogen, such as HIV, from mother to baby during birth.
Pharmacokinetics	Farmacocinética	The extent the body is able to absorb, distribute and eliminate a drug over time.
PID	Enfermedad inflamatoria pélvica o enfermedad pélvica inflamatoria (EPI)	A gynecological condition caused by an infection (usually sexually transmitted) that spreads from the vagina to the upper parts of a women's reproductive tract in the pelvic cavity. PID takes different courses in different women, but can cause abscesses and constant pain almost anywhere in the genital tract. If left untreated, it can cause infertility or more frequent periods. Severe cases may even spread to the liver and kidneys causing dangerous internal bleeding, lung failure and death.
PMN	Polimorfonucleares	
q	quaque	The medical abbreviation for "each" or "every."
q.d.	quaque die	means every day.
q.h.	quaque hora	means every hour.
q.i.d.	quater in die	means four times a day.
q.l.	quantum libet	means as much as one pleases.
q.s.	quantum sufficit	means as much as necessary.
RB	Cuerpo reticulado intracelular de C. trachomatis	Reticulated body
RCL	Reacción en cadena de la ligasa	
RCP	Reacción en cadena de la polimerasa	
Recurrence	Recidiva	The return of symptoms after a remission (time without symptoms).
Reiter's syndrome	Síndrome de Reiter	A group of symptoms which appear as a complication of nonspecific urethritis. Symptoms include urethritis, arthritis, and conjunctivitis.
RPR	Reagina rápida en plasma. Mide anticuerpos reagínicos en la sífilis	Rapid plasma reagin
SL	Serología luética (pruebas de detección o antitreponémicas específicas)	
STD	Enfermedades de transmisión sexual	Sexually Transmitted Diseases
Symptom	Síntoma	Any perceptible change in the body or its functions that indicates disease or the kind or phases of disease.

THPA	Microhemaglutinación	Microhaemagglutination Assay for Antibodies to Treponema pallidum. Sheep red blood cells coated with T. pallidum are agglutinated by patient's antibody.
Thrush	Candidiasis oral	
TPPA	Aglutinación de partículas de T. pallidum	
TSS	Test serológico de sífilis	
UNE	Uretritis no específica Uretritis no gonocócica	
VDRL		Venereal Disease Research Laboratory
VHS	Virus del herpes simple	
VZV	Virus de la varicela zóster	
Wart	Verruga	A raised growth on the surface of the skin or other organ.
Whitlow	Panadizo	Herpes infection on the fingers or toes.
Yeast Infection	Candidiasis	

Enlaces útiles:

<http://www.ashstd.org/stdfaqs/glossaryrz.html> Fuente de La mayoría de las definiciones en el glosario.
<http://www.nlm.nih.gov/medlineplus/spanish/tutorials/sexuallytransmitteddiseasesspanish.html>

MATCH

Old and current names of diseases.
How many can you match?

- | | |
|-----------------------|----------------------|
| 1. Apoplexy | a. yellow fever |
| 2. American plague | b. mononucleosis |
| 3. Glandular fever | c. stroke or CVA |
| 4. Phthisis | d. dengue |
| 5. Horrors | e. Parkinson's dis. |
| 6. Quinsy | f. erysipelas |
| 7. St Anthony's fire | g. tonsillar abscess |
| 8. St. Vitus dance | h. delirium tremens |
| 9. Breakbone fever | i. rabies |
| 10. Paralysis agitans | j. anthrax |
| 11. Canine madness | k. typhus |
| 12. Rag picker's dis | l. TB of neck glands |
| 13. Ships fever | m. diphtheria |
| 14. Kings evil | n. tuberculosis |
| 15. Bladder in throat | o. Sydenham's chorea |

Find the answers on page 38

by Rafael Rivera

Words about words and related words.

Our Glossarium features terms in English, but in their definitions may also include terms in other languages that are a source of confusion during translation. Information sources are varied including knowledge and experience of the editorial staff.

lightheadedness, giddiness, faintness, vertigo: these 4 words are often used interchangeably to mean, in varying degrees, a sensation of unsteadiness, loss of balance, inability to remain upright, a feeling that one is about to fall or faint, along with the sensation that either oneself or the room is spinning. Vertigo is the medical word used for the distinct experience of spinning of surrounding objects usually associated with an inner ear problem. To faint is to lose the ability to maintain balance or posture leading to a fall. Faintness, lightheadedness and giddiness are similar ways of describing the sensation that one is about to lose postural control and fall - in Spanish, una sensación de mareo.

jugular: besides the classic name of the venous system that drains the cranium and head there is an additional meaning in Spanish for which there is no English use. Jugular can also mean an abrupt ending to an activity or a process of any kind.

attending physician: the physician member of hospital's medical staff who is medically and legally responsible for the care and treatment provided to a given patient.

housestaff: licensed physicians in training who participate in patient care under the supervision of practitioners who are members of a hospital's medical staff. These are typically referred to as interns, residents, fellows and other training positions.

hospitalist: refers to fully trained and licensed physicians who limit their practice to the care of inpatients. Hospitalists serve as the attending physician (see above) for patients who need hospital admission and do not have a primary care physician (PCP) who can serve as attending physician. They also can care for patients whose PCP is not available or may be available but refers their inpatients for care to the hospitalist. A hospitalist should not be confused with a member of the housestaff (see above).

primary care physician / practitioner / provider:

refers to a general practitioner, family practitioner, primary care internist or pediatrician who usually provides only primary care services. A physician with specialty qualifications may also provide primary care alone or in combination with referral services. In the language of managed care it refers to the physician who serves as the primary caretaker and must be seen first to handle all matters including consultation services.

dermatosyphilography: a term combining the words dermatology and syphilography. In Spain the specialty of Dermatology is referred to officially as Medical-Surgical Dermatology and Venereology; the official organization is the Spanish Academy of Dermatology and Venereology whose official publication is the Actas Dermo-Sifilográficas. In the United States the specialty is called simply Dermatology, no other specialty name is attached to it and that is what the English translation should be for the term in question. Syphilis and other venereal diseases are now officially known in the US as Sexually Transmitted Infections (STI), also commonly known as Sexually Transmitted Diseases (STD).

wellness: a concept of modern times referring to a feeling of well being that goes beyond health defined as the absence of illness. Many people who don't feel well are found after extensive medical check ups not to have a discernible physical cause to explain their complaints. This is the area where alternative medicine methods that advocate lifestyle changes such as weight reduction, smoking cessation, exercise, stress reduction - the so called holistic approach - have gained acceptance. It is a difficult term to translate but, in Spanish, *bienestar* comes close to the intended description by patients.

by Elena Sgarbossa, MD

Glossary of Abbreviations

A common stumbling block is that of abbreviations, which are not always spelled out in the source text. While medical abbreviations can sometimes be found online or in dictionary lists, lists are often incomplete. Or, if an abbreviation's several meanings are located, how does one decide which is the most appropriate for the context. Here we continue offering a glossary of medical abbreviations. We hope you will find it helpful.

ECA

- **external carotid artery:** a large artery at each side of the neck, where the carotid pulse can be felt
- **Epidemiological Catchment Area:** a term used in Epidemiology. "Catchment" is the geographical area served by an institution
- **enterobacterial common antigen:** a cell surface antigen synthesized by gram-negative enteric bacteria.

EF

- **ejection fraction:** a measure of cardiac function provided by imaging and angiographic tests
- **edema factor:** one of the three proteins of the anthrax toxin.

EP

- **evoked potentials:** recorded electrical signals, produced by the nervous, muscular, and cardiac tissues. Evoked potentials are used in research and diagnosis
- **Electrophysiology:** specific area within Neurology and Cardiology that assesses the status and functioning of tissues with electrical properties. Cardiac Electrophysiology is a specialty that also provides treatment for "electrical" disorders (i.e., cardiac arrhythmias).
- **ectopic pregnancy:** a pregnancy outside the uterus
- **emergency physician(s)**

Within a single medical context, the abbreviation "EP" may be equally likely to allude to two of these terms, for example:

- "evoked potentials" and "Electrophysiology / electrophysiological"
- "Electrophysiology" and "emergency physician(s)"
- "ectopic pregnancy" and "emergency physician(s)".

EPOC

Especially for those of us working with Eng↔Sp, the abbreviation **EPOC** can be tricky.

In English, **EPOC** is **excess post-exercise oxygen consumption**, a metabolic measure

In Spanish, **EPOC** is **enfermedad pulmonar obstructiva crónica**, chronic obstructive pulmonary disease -abbreviated COPD.

Some medical publications in Spanish use English abbreviations. This is why in articles discussing respiratory diseases, gas exchange, or metabolism, "EPOC" merits extra attention.

ERT

- **estrogen replacement therapy:** a treatment used for menopause or cancer. Also abbreviated "HRT", hormone replacement therapy.
- **external [beam] radiation therapy:** radiation treatment directed at a portion of the body from outside it.

ETT

- **endotracheal tube:** used for intubation in respiratory emergencies or for anesthesia
- **exercise treadmill testing / exercise tolerance test:** progressively intense physical activity under controlled conditions to assess pulse, blood pressure,
- and electrocardiographic changes. An ETT may also accompany a cardiac imaging test.

About the author:

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Analyzing the Analyzers - Another Pavlovian Contribution

by Andrey Azov

***Analyzer:** Pavlov's name for a specialized part of the nervous system which controls the reactions of the organism to changing external conditions (Dorland's Medical Dictionary)*

In the post-Soviet countries the word *analyzer* is frequently heard from physiologists and neuroscientists, found in the names of laboratories and in titles of scientific publications or conferences. The concept of analyzer is taught at schools and universities, being the legacy of those golden days when giants walked the Earth and Russian science was in many fields at the very frontiers of human knowledge. And yet, the concept of "analyzer" is virtually unknown in the West.

It was in 1927 that Russian physiologist Ivan P. Pavlov - already a world-famous figure, the first Nobel Prize winner in physiology, the founder of the concept of the conditioned reflex, - wrote in his classical treatise:



Figure 1. Ivan Petrovich Pavlov, 1849-1936 (from "Pavlov, Ivan Petrovich." Encyclopædia Britannica. 2004. Encyclopædia Britannica Online. 30 Nov. 2004)

"[T]he nervous system possesses... a definite analysing mechanism, by means of which it selects out of the whole complexity of the environment those units which are of significance..."¹

This analytical part of the nervous system, he maintained, *"readily admits of subdivision into what we may term the **nervous analysers**. For example, the visual analyser selects the vibrations of light, the acoustic analyser selects the vibrations of sound, and so on."* He then offered the first definition of his concept: *"With regard to the structure of the analysers, each includes, on the one hand, the peripheral receptor with all its afferent nerves, and, on the other hand, the nerve cells which lie at the central termination of the nerve fibres."*

Contemporary reference sources define the analyzer as a complex morpho-functional unit that receives and processes information of events occurring outside or inside

the body and produces sensations specific for each analyzer.² An analyzer consists of a peripheral receptor, a transmitter, and a central analytical part.³ Medically speaking, a peripheral receptor is any sensory organ; a transmitter is a peripheral neuron associated with internuncial neurons, and a central analytical part is a group of nerve cells in the sensory cortex.

The concept of the nervous analyzer predates that of the conditioned reflex. Indeed, the basic question driving Pavlov's experiments was how an animal perceives the variety of external stimuli and responds to them differently. Analysis was the underlying model of the animal's mental processes; conditioning was but a method to study it.

Apparently, the English language did not provide fruitful soil for the concept of nervous analyzer. No matter how many contemporary academic books one studies, one hardly finds an equivalent name for this functional entity spreading from a sensory organ through various nervous pathways to the brain. In English, the functional rather than structural terms prevail, such as Vision, or Hearing Process, or Touch Physiology. This should be taken into account by the translator who strives for clarity. If historical considerations are important, however, then one must render the formal translation, "analyzer".

¹Pavlov I.P. *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex* London: Oxford University Press; 1927 (Translated by G. V. Anrep, 1927)

²Encyclopedic Dictionary of Medical Terminology. Moscow: Sovetskaya Entsiklopediya; 1982-84

³Great Soviet Encyclopedia. Moscow: Sovetskaya Entsiklopediya; 1969-78

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Principles Of Medical Terminology

by Maria Rosdolsky

Since Latin and Greek words are used, medical terminology is similar in many languages. Medical terms are adjusted to their respective languages with regard to their endings, spellings, and pronunciations. Medical terminology may be considered an international artificial language that developed over many centuries, and has undergone changes as new discoveries were made throughout history. Changes in basic medical terminology, i.e., terms of anatomy, physiology, pathology, and diseases, include adjustments of terms to improve understanding and to take into consideration newly discovered etiological and pathogenetic factors of known diseases, newly discovered diseases, as well as available treatments. The terminology of medical technology changes ever more rapidly as new procedures are developed at an overwhelmingly fast pace.

In this article, the linguistic structure of medical terms, i.e., the principles of how terms were created by modifying and combining Greek and Latin words, is summarized. Knowledge of these principles, still in use, facilitates understanding and learning the medical language.

I. COMPONENTS OF MEDICAL TERMS

- roots (stems)
- prefixes
- suffixes
- linking (combining) vowels

Examples:

PERI-CARD-IUM, PERI-CARD-ITIS

PERI is the prefix and means around. CARD is derived from the Greek word *kardia*, is the stem, and means heart. IUM is the suffix (Latin ending of a noun). ITIS is a suffix and means inflammation. Pericardium is the sac, which surrounds the heart. Pericarditis is an inflammation of the pericardium.

ANGI-O-GRAPH-Y

ANGI, derived from the Greek *angeion*, is the first stem, and means blood vessel. O is the linking vowel. GRAPH, derived from the Greek *graphein*, is a second stem and means to write or to record. Y is the suffix and indicates a procedure. Angiography is the radiological visualization of blood vessels.

Prefixes modify the meaning of a word.

Examples:

HYPERGLYCEMIA

HYPER means above, excessive; "hyper" modifies glycemia; GLYCEMIA means blood sugar. Hyperglycemia means high blood sugar level.

DYSKINESIA

DYS means abnormal; "dys" modifies kinesia; KINESIA means movement. Dyskinesia means abnormal movement.

Suffixes usually indicate a normal or pathological condition, or a procedure.

Examples:

NEPHROPATHY

PATHY indicates disease; NEPHROS means kidney. Nephropathy means disease of the kidney.

APPENDECTOMY

ECTOMY indicates cutting out; APPENDIX means accessory part, and is used for the vermiform appendix of the colon. Appendectomy means surgical removal of the appendix.

The definition of suffixes varies in the literature, especially for words ending with "y" or "ia". Most authors include the preceding noun in the definition, which is, strictly speaking, not a suffix but rather a second root. In our examples, PATH and TOM would be the second roots, and Y the suffix indicating a condition or procedure. These second roots are never used by themselves and can therefore also be considered suffixes.

Linking Vowels are used to combine two roots or a root and a suffix

if the first root ends with a consonant and the second root starts with a consonant.

Example: **SPLENOMEGALY** (SPLEN = spleen, MEGALY indicates enlargement). Splenomegaly means enlargement of the spleen.

if the first root ends with a vowel and the second root starts with a consonant. In this case, the vowel at the

end of the first root is usually replaced by the linking vowel.

Example: ARTERIOSCLEROSIS (*arteria* [see above], *skleros* = hard). Arteriosclerosis means hardening of the arteries.

The linking vowel is an "i" if

both components are Latin (rare).

Examples:

SUICIDE (*suus* = his own, *cid* is derived from *caedere* = kill)

QUADRICEPS (*quadr* is derived from *quattuor* = four; *ceps* is derived from *caput* [head]). Quadriceps is a muscle of the thigh with four heads.

The linking vowel is an "o" if

both components are Greek.

Example: TRACHEOSTOMY (*trachea* is derived from *tracheia* and means windpipe, *-tomy* is derived from *tome* and means cutting). Tracheotomy is the surgical creation of an opening in the trachea.

if one component is Latin and the other one Greek.

Example: DUODENOSCOPY (*duodeni* = twelve at a time [the duodenum is 12 finger breadth long], *scopy* is derived from *skopein* = examine). Duodenoscopy is the examination of the duodenum with an endoscope.

if both components are Latin.

Example: COSTOSCAPULAR (*costa* = rib, *scapula* = shoulder blade). Costoscaphular means pertaining to the ribs and the scapula.

Loss of vowels and consonants

Between prefix and stem or between two stems, a vowel or consonant may be lost.

Examples:

NEPHRECTOMY (*nephros* = kidney and *ectomy* = cutting); in the word "nephrectomy", the last two letters of "nephros" are lost. Nephrectomy means surgical removal of the kidney.

PAROTID (*para* = next to, *otos* = ear); in the word "parotid", the last letter of "para" is lost. Parotid is a gland next to the ear.

ANEMIA (*an* = not present, *heima* = blood); in the word

"anemia", the first letter of "hema" is lost. Anemia is a condition with a reduced red blood cell count.

II. COMPOSITION OF MEDICAL TERMS

1. Elements of medical terms

Medical terms may be composed of

Two or more roots

Examples:

MYOCARDIUM

MYOS means muscle, CARDIA means heart, IUM is the Latin ending of the Latin noun. Myocardium is the muscle layer of the heart.

ARTERIOSPASM

ARTERIA is probably derived from *aer* = air (in the past, the arteries were believed to contain air) and *terein* = to keep, SPASMUS is derived from *spasmos*, and means sudden involuntary muscle contraction. Arteriospasm is a sudden involuntary contraction of the smooth muscles in an artery.

Prefixes and roots

Examples:

ENDOCARDIUM

ENDON means within, CARDIA means heart, IUM is the Latin ending of the noun. Endocardium is the inner layer of the heart

HEMIPARESIS

HEMI means half, PARESIS means weakness. Hemiparesis is a weakness of one side of the body.

Roots and suffixes

Examples:

NEPHRITIS

NEPHROS means kidney, ITIS indicates inflammation. Nephritis is an inflammation of the kidney

HEPATOMY

HEPAR means liver, PATHY indicates disease. Hepatopathy is a disease of the liver.

2. Structure of medical terms

The composition of medical terms may be

Determinative

One component describes the other. In the following examples, the component containing the description

precedes the component that is described.

Examples:

HEMATURIA

HAEMA means blood, URIA indicates a characteristic or component of the urine. Hematuria means blood in the urine; blood describes the urine.

UREMIA

UR refers to urine, EMIA is derived from hema. Uremia means that substances normally excreted in the urine are in the blood; urine describes the blood.

Copulative

The two components stand next to one another and may be combined with "and".

Examples:

MUSCULOCUTANEOUS

MUSCULUS means muscle, CUTIS means skin. Musculocutaneous means pertaining to muscles and skin.

COSTOCLAVICULAR

COSTA means rib, CLAVIS means key (the clavicle looks like a key), CLAVICULA = collar bone. Costoclavicular means pertaining to the ribs and the clavicle.

Determinative and copulative combined

Examples:

HEPATOSPLENOMEGALY

HEPAR means liver, SPLEN means spleen, MEGALY means enlargement. Hepatosplenomegaly means enlargement of the liver and spleen. Liver and spleen stand next to one another (copulative); enlargement describes the liver and the spleen (determinative).

RADICULONEUROPATHY

RADIX means root, NEURON means nerve, PATHY indicates disease. Radiculoneuropathy is a disease of the nerve roots and nerves. Radix and neuron stand next to one another (copulative); "pathy" describes the roots and the nerves (determinative).

III. COMBINATIONS OF MEDICAL TERMS

Adjective or adjectives and noun. In Latin, the adjective follows the noun.

Examples:

NERVUS FACIALIS (facial nerve) (facialis is derived from facies [face];

ANEMIA PERNICIOSA (pernicious anemia)

(perniciosus/perniciosa means harmful).

Exception (adjective before the noun): **PIA MATER, DURA MATER** (pia = soft, dura = hard, mater = mother). Pia mater is the innermost layer of the membrane covering the brain and spinal cord. Dura mater is the outermost layer covering the brain and spinal cord.

Two or more nouns, one of them in the second case.

Examples:

ANGINA PECTORIS (angina = pain, pectus = chest). Angina pectoris means pain of the chest.

ARCUS AORTAE (arcus = arch, the aorta is the main arterial trunk). Arcus aortae is the arch of the aorta.

Two or more nouns and two or more adjectives

Example:

NERVI DIGITALES DORSALES NERVI ULNARIS (dorsal digital nerves of the ulnar nerve) (dorsum = back; dorsalis = pertaining to the back). These nerves originate from the ulnar nerve and innervate the dorsal sides of the fourth and fifth fingers.

Apposition of nouns.

Examples:

MUSCULUS ADDUCTOR (adductor muscle) (adducere = draw toward); an adductor muscle is a muscle that draws a limb, or a finger toward the axial line.

HERPES ZOSTER (shingles) (herpes is derived from herpein [to creep]; zoster = girdle)

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Biography of Maria Rosdolski

Austrian-born physician specialized in Psychiatry and Neurology who has worked as biomedical information specialist, medical writer, German teacher and English <> German medical translator for more than 20 years. She has contributed and edited entries for a German <>English medical dictionary and teaches medical translation Ger > Eng online at New York University.

by Roberto Guzmán

A ver qué se cuece en los pasillos ..

1. jipío - labored breathing, generally accompanied by wheezing or sibilant sounds

2. abierta - literally means 'open'; refers to severe low back pain possibly triggered by a fall or sudden movement or heavy lifting. *Tengo la espalda abierta .. , se me abrió la espalda*, my back is open. Another word for a similar situation is *zafada* which means "loosened up", which is used when a dislocation or displacement of joint takes place, acutely or chronically. *Se me zafó el hombro..*, my shoulder got out of place

3. ceguera - literally means blindness, used as generic term for conjunctivitis, would literally correspond to the English "pink eye"

4. acartonada - refers to a chronic disease whose progress has been arrested, seemingly "boxed"

5. overo - descriptive name for a black or mulatto person who has chronic white spots of vitiligo over the face and hands

6. ñañara: a sore or ulcerated area that results from infected scratches

7. agitado: literally "agitated" is usually used for shortness of breath of any cause, not necessarily associated with a frightening experience

8. cortado: literally "cut up" is used for the non-specific feeling of overall general malaise, perhaps with slight fever, that precedes the onset of manifest illness, usually of a viral nature. ; *tener el cuerpo cortado*

9. revirado: term used to mean being upset with or without apparent cause. Term also applied to adolescent's disobedient nature.

10. repuesto: refers to the general healthy look of someone who has recovered from an illness

11. catarro recogido: literally a case of a cold that has "gathered up", a way of describing a typical cold but without nasal secretions

12. chupón: a hematoma produced by forceful sucking during a kiss

13. aire: this colloquialism was explained previously; said of the person whose illness is explained as due to having been exposed to a rush of air, "a draft", particularly a cold one. Used to explain causation of a variety of medical problems such as earache, muscular spasms and facial paralysis. A 7th nerve facial palsy coming on shortly after an exposure to a rush of cold air is a recognized medical cause-effect relationship.

14. empacho: very common expression. Refers to a persistent sensation of heaviness in the stomach area after a heavy meal or having eaten too much of a particular food item; feels as if the food consumed is "stuck" in place.

15. una baja: literally "a down." To have a down is to feel depressed.

16. Dr. Sanduti: Holly Mikkelson shared the following anecdote in one of her sessions during her Medical Interpretation course in Monterey. A Spanish speaking gentleman came to a California hospital complaining of the poor care received by his child who had been seen at the ER and continued to feel poorly. When he was asked what was the name of the physician involved, he replied Dr. Sanduti. Hospital personnel searched carefully all rosters but couldn't find such a Dr. Sanduti. The hospital risk manager asked him to write a complain letter and be sure to mention the Dr's name. The letter stated Dr. Sanduti. When taken to the ER to see whether he could identify the physician he promptly recognized him. His name tag read: Doctors on Duty, the name of the group of physicians covering the ER. The good doctor was happy to see the child again until improvement was obtained. Remember: LEPs do the best they possibly can and we should do the best we can to care for them.

Readers are invited to send in typical words or expressions used in their respective countries of origin, along with a brief explanation of what the colloquialism means or is used for. Contributions in other than Spanish are particularly sought.

Should an interpreter use the interpreting session to be a culture broker?

by Zarita Araujo-Lane, LICSW

Edited by Vonessa Phillips

During my many years of interpreting and teaching interpretation, I have struggled with the question: How can an interpreter be a culture broker and not interfere with the patient-provider rapport?

For example, I have often encountered patients who put the provider right up there with "God". They feel that providers carry indisputable power and truth. These patients may feel uncomfortable when witnessing an intervention by an interpreter who does not view providers as ultimate authority figures, but rather, as partners, and the intervention as a collaborative dynamic between two professionals. This clash of viewpoints can lead to mistrust in the triadic encounter.

A patient once expressed to me her fear that an interpreter may have made a provider mad by telling the provider "how our people think". The patient was worried that, as a result, the provider would treat her differently, perhaps not with the same level of care as before the interpreter's interference. This patient understood that providers in America have a different way of doing things. The last thing she wanted was to disrespect the provider. This statement made me rethink if interpreters who coach providers in the middle of a session are being truly helpful. And are they really representing the patient's wishes?

Let's consider another example. An interpreter working with a provider about to disclose a diagnosis of terminal illness interrupts the session in the presence of the dying patient to inform the provider that in this patient's culture, truth telling may not be the best approach. The interpreter suggests that perhaps the provider might involve the patient's family in the discussion of the diagnosis before disclosing the information to the patient.

On one hand, we do know of some cultures in which patients made aware of a terminal illness are more likely to commit suicide. From this perspective, an immediate intervention by the interpreter-culture broker might seem like the right thing at the moment. But should we also consider this situation from another perspective?

According to D. Robert Buckman in his book **How to Break Bad News**, providers have gone through drastic changes regarding truth telling. In 1950, ninety percent of providers avoided telling the truth to patients suffering from a serious or terminal illness. In 1970, however, ninety percent of providers were telling the truth to patients. Apparently, this progression in addressing terminal illness was a direct result of the Patients' Rights movement. When it comes to cultural conflicts with truth telling, it is my belief that providers will not usually change their methods in a split second just because the interpreter suggests that they do so. Some will ignore the interpreter's suggestions and will continue to insist on "straight talk" with the patient. "This is America", they may say, "Patients have the right to know their medical condition. It is my ethical obligation to tell them!"

Back to the session with the terminally ill patient: the interpreter speaks out in the session, addressing the provider in the presence of the patient, and suggests an alternative to straight talk about the illness. This is done in English, and the LEP patient is left out of the communication. The patient, though, knows that there is something wrong. He senses some stress in the facial expressions of both the interpreter and the provider. The patient is worried. Despite being unaware of the content of the interpreter-provider communication, he sees that the interpreter has interrupted the session. The patient does not want the interpreter to create unnecessary tension with the provider, who in his eyes carries a lot of power. In such a case, was the interpreter's intervention necessary? If so, was there a better way to go about it?

As interpreters, we can be made to feel weighed down by cumbersome mandates: the responsibility of being a conduit, interpreting meaning accurately without additions, omissions or mistakes, and the simultaneous obligation to intervene as a culture broker with the purpose of facilitating a provider's understanding of issues that only someone who has lived or worked within the specific patient's ethnic group understands. And yet, each patient is an individual with a set of legal and moral rights. Are we interpreters

imposing our views regarding truth telling in the triadic encounter?

Throughout the years, I have tried and experimented with a variety of interventions that at the time I thought were best for the patients involved. In retrospect, I suppose that at the same time, I often "lost" the providers in the interventions. Now that I am growing older, and have had the benefit of experience as a mental health clinician working with interpreters, and also as an interpreter for other clinicians, I am beginning to find my center as a cultural liaison.

When I first sense the "need" to act as a culture broker, I take a deep breath and mentally revisit the "Six Ws" that help me to differentiate between my own opinions and what may actually be best for the patient.

The "Six Ws" is a general tool that serves as a guide to the interpreter debating whether to "help" a clinician or patient by sharing certain information. Ask yourself:

- Who owns the information?**
- Whose job it is to share the information?**
- With whom can I share it?**
- Who is going to be affected by my actions?**
- What does the law say?**
- Would a professional interpreter association support my action?**

Interpreters working through this exercise will likely opt to act as a culture broker after the session, or prior to the session, but rarely during a session.

Here are some suggestions for interpreters who see themselves as culture liaisons with a need to be more effective in the triadic communication:

A macroperspective:

It will take a long time, but begin to work within the healthcare system to develop a continual dialogue between providers and interpreters. Use the same tools that providers use, such as Grand Rounds, where interpreters and providers can come together to review cases that may have required a culture broker. Suggest that a representative from the Interpreter Services department at your health care facility sit on the taskforces and committees that deal with ethical issues. Interpreters should begin to write case studies for the different magazines on

ethics in health care, and to solicit responses from the medical community. Interpreters can also partner with colleges and universities on research into the issues surrounding cultural liaison work.

A microperspective:

Ideally, the interpreter-culture broker should be able to follow a model already existing in healthcare practice: that of the consultant. Interns often call for a consult from a colleague or a superior. Primary care physicians often need to discuss cases with a cardiologist, oncologist or other specialist. The concept of requesting a consult implies an imminent need, and most likely the referring provider will discuss this need with the patient and then proceed to communication with the consultant. Until this concept of seeking out a consult on cultural and linguistic issues takes flight, interpreters may have to be creative with their interventions.

True, being a culture broker is one of the interpreter's responsibilities. But developing effective brokering techniques is not an easy task. It requires that both sides, interpreters and providers, come to a mutual understanding of the need for professional collaboration and dialogue around the current culture of intervention and on how the behavior of intervention impacts the patient population.

For example, an interpreter who has gone through the Six "W(s)" and decided that the situation at hand is not one of life and death may want to approach the provider privately at the end of the session and mention that there are some tools that the provider can implement to facilitate cross cultural communication and offer to explain them.

In extreme situations where the patient will likely not return to the health care facility because the provider has committed a perceived cultural offense, the interpreter may need to take a more immediate action. He or she can ask the provider to step outside. The provider should then inform the patient that the interpreter and provider will be stepping out.

During the intervention, which takes place away from the patient, the interpreter will address the cultural issues with the provider only. The interpreter will preface remarks with, "It seems to me..." "In my experience..." "Often..." and "From what I've observed..." (thus allowing for the individuality of the patient in question), and will end

remarks with "...but you may want to check in with the patient to see if this is true", (which encourages the provider to reconnect with the patient through further investigation).

Not only will the interpreter and provider have discussed a potential belief system and gone over an appropriate intervention, but they will also have agreed on an explanation to the patient for the interruption of the session. There should be no secrets in the triadic encounter. Thus, the provider, the one carrying the most power in the patient's eyes, should be the one to explain the interruption

by bringing the interpreter in as a consultant. So the session resumes with the provider stating, "Julia (name of interpreter) was concerned with the fact that I may not be aware of a cultural belief that may or may not be true for you. She was so kind as to coach me on this. Let's see if this works for you..."

The intervention of having the interpreter in the role of culture-consultant will allow the patient to continue to deposit trust in the patient-doctor relationship by leaving the provider's role whole and not broken.

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- 1. c
- 2. a
- 3. b
- 4. n
- 5. h
- 6. g
- 7. f
- 8. o
- 9. d
- 10. e
- 11. i
- 12. j
- 13. k
- 14. L
- 15. m

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All



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