Caduceus

A Publication of the Medical Division of the American Translators Association

SUMMER 2009

ata

MEDICAL DIVISION

SPECIAL EDITION

2009 MID-YEAR CONFERENCE

Caduceus

A PUBLICATION OF THE MEDICAL DIVISION OF ATA

Summer 2009

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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Instructions to Authors

Submissions for publications must be sent electronically in Word format. The deadline for submissions for the Fall/Winter issue of ***Caduceus*** is 31 September, 2009.

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.

The Summer 09 issue has a varied content. The article on genetics completes our undertaking of this interesting but difficult subject to understand and explain. Genetics Part II by Patricia Thickstum, Assistant Administrator of the Medical Division, is an attempt to simplify the process of transcription, which is the central process by which genetic information stored in a gene is transferred from it into the actual protein that will carry out the instructions within said gene. Dr. José Martí reviews the genetic aspects of breast cancer and Dr. Jim MacAninch does the same with the targeted therapy of chronic myelocytic leukemia. Dr. Elena Sgarbossa tells us about the curious relation between hiccups and our invertebrate ancestry. Zarita Araujo starts a series on mental health interpreting. Our short Book Review is to introduce the reader to Dr. Sherwin Nuland in his latest book *The Soul of Medicine*. Dr. Nuland is probably the most recognized and captivating medical storyteller of our time. The results of our Medical Division Survey are published in this issue. A robust listing of medical information sites online is laid out for our readers. Even a note about the "swine flu" lies within.

The rest is the Glossarium and Bits and Pieces, our usual rendition of bite-size pieces of information on terminology and medically related topics of interest.

We are very interested in expanding our list of contributors, be they occasional or regular. Medical Division member Carmen Cross will be with us in our next issue and we know that many of you have information that would be of interest to our readers. We are also interested in crossword puzzles, matches, word finders, cartoons and the like. You may give us ideas about what topics would be of interest and what other needs could be served through Caduceus. Get involved!

We are grateful for your comments about Caduceus in response to our request for input from our readers. It is pleasing to know that the newsletter is read and the contents are found worthy. There is room for further commentary for those who have not yet expressed an opinion. Tell us what your preferences are, what topics you would like to see appear in our pages and anything you think could improve our newsletter.

You can write to us at: caduceusnewsletter@gmail.com

PLANNING AHEAD:

The Medical Division 2009 Mid-year Conference date has been set.

The Administrator's page contains the details.

Don't miss it !!!

by Esther Diaz

ATA Mid-Year Conference of the Interpreters and Medical Divisions
Saturday, July 18, 2009, Washington, D.C.

At long last, we have selected Washington, D.C. as the site for the Mid-Year Conference. As previously announced, this will be our first joint conference with the Interpreters Division, so both medical translators and interpreters will benefit from the presentations and the optional, pre-conference tours of Georgetown University Hospital and the National Center for State Courts.

Register online or by mail by downloading the registration form at http://www.atanet.org/divisions/ID_MD_conference.php.

Preliminary Program

Saturday, July 18

<table>
<tr><td>7:30 – 9:00</td><td colspan="5">Continental Breakfast & Registration</td></tr>
<tr><td>9:00 – 10:00</td><td colspan="5">Welcome and Open Plenary Session
Language Access Program at Georgetown University Hospital
- Jessica Jones, M.A.</td></tr>
<tr><td>10:00 – 10:15</td><td colspan="5">BREAK & EXHIBITS</td></tr>
<tr><td>10:15 – 11:15</td><td colspan="3">Translation Track
Terminology Presentation-Mental Health
– Maria Rosdolsky, M.D.</td><td colspan="2">Interpreting Track
Interpreting in Speech-Language Therapy
– Katherine Langan, Ph.D.</td></tr>
<tr><td>11:15 – 11:30</td><td colspan="5">BREAK & EXHIBITS</td></tr>
<tr><td>11:30 – 12:30</td><td>Spanish</td><td>French</td><td>German</td><td>Int'l</td><td>Ensuring Access and Equal Justice
– Carola Green, FCCI</td></tr>
<tr><td>12:30 – 1:30</td><td colspan="5">LUNCH & EXHIBITS</td></tr>
<tr><td>1:30 – 2:30</td><td colspan="3">Translation Track
Role of Medical Linguists in Disease Preparedness, Outbreaks, and Risk Communication: Update on H1N1 Swine Influenza
– Patricia Thickstun, Ph.D.</td><td colspan="2">Interpreting Track
Note-Taking in Consecutive Interpreting
– Virginia Valencia, M.A.</td></tr>
<tr><td>2:30 – 2:45</td><td colspan="5">BREAK & EXHIBITS</td></tr>
<tr><td>2:45 – 3:45</td><td colspan="3">Presentation by Georgetown University Hospital physician
– TBA</td><td colspan="2">Presentation by
–Rosemary Dann, Esq., NAJIT Chair</td></tr>
<tr><td>3:45 – 4:30</td><td colspan="5">CLOSING PLENARY SESSION</td></tr>
<tr><td>5:00 – 7:00</td><td colspan="5">RECEPTION</td></tr>
</table>

Pre-Conference Free Tours:

Friday, July 17
1:00 pm - 4:00 pm

Georgetown University Hospital has five centers of excellence: The Lombardi Comprehensive Cancer Center, Neurosciences, the Institute of Transplantation, Hepatobiliary Diseases, Gastroenterology, and Peripheral Vascular Surgery, in addition to a well-established International Services Department.
To register for this tour, contact Esther Diaz at mediaz@austin.rr.com.

The National Center for State Courts (NCSC) houses the world's largest collection of resources on judicial administration. In keeping with its mission, the NCSC continues to improve the administration of justice through leadership and service to state courts, developing court standards, promoting the use of technology to improve court operations, facilitating information sharing among member states as well as entities and increasing interpreter professionalism.

To register for this tour, contact Thelma Ferry at topinterpreter@stx.rr.com.

Details on parking and gathering spot for both tours will be provided upon registration.

The host hotel will be the **Embassy Suites Washington, DC** (1250 22nd Street). The conference room rate is $169 for single and double occupancy. A complimentary breakfast and manager's reception will be available to hotel guests. There is free Internet access in the Atrium and Business Center. Use the following link to register at the conference rate:

http://embassysuites.hilton.com/en/es/groups/personalized/WASDNES-MDY-20090717/index.jhtml.

☞ **Group Code: MDY**.

We are seeking exhibitors and sponsors so, if you know of any interested organizations, please ask them to contact Esther Diaz at mediaz@austin.rr.com.

See you in July!

by Patricia Thickstun

The concept known as the "Central Dogma" of molecular biology states that genetic information flows from DNA to RNA to protein via the transcription of DNA to RNA, which is followed by the translation of RNA to protein. This process occurs in three stages.

1. The information in DNA is replicated in a process that involves several enzymes, including DNA polymerase during replication.
2. DNA codes for the production of messenger RNA (mRNA) during transcription. In eukaryotic cells, mRNA is processed by splicing and migrates from the nucleus to the cytoplasm.
3. Messenger RNA carries coded information to ribosomes where it is "read" and used in the protein synthesis process during translation.

Genetic information is stored in and transmitted as DNA. Genes are expressed by being copied as RNA (transcription), which is processed into messenger RNA (mRNA) via splicing and polyadenylation.

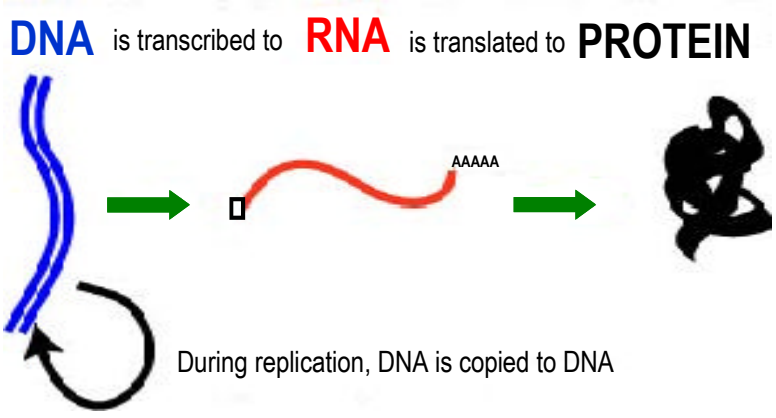
The information in mRNA is translated into a protein sequence using a genetic code to interpret three-base codons as instructions to add one of twenty amino acids or to stop translation.

The genome includes all DNA in an organism, including non-coding DNA (e.g., regulatory elements of gene expression) and coding DNA (genes). Genes carry information for making all the proteins produced by an organism. While proteins do not code for the production of RNA, DNA, or other proteins, they are involved in almost all structural or enzymatic biological activities.

The discovery of the structure of DNA and the concept of the "central dogma" of molecular biology are essential to understanding how inherited characteristics are passed from one generation to the next. The elucidation of the genetic code is essential to understanding the role of DNA in cellular functions.

The U.S. Human Genome Project was a 13-year effort coordinated by the U.S. Department of Energy and the National Institutes of Health to identify all of the approximately 20,000 to 25,000 genes in human DNA and determine the sequences of its 3 billion base pairs. The sequencing and analysis of the human genome was completed in 2003.

Knowledge about the effects of DNA variations among individuals can be used to develop new methods for the diagnosis, treatment, and prevention of disorders. Advances in molecular medicine resulting from the elucidation of the human genome are expected to lead to improved diagnosis of disease, earlier detection of genetic predispositions to disease, rational drug design, gene therapy and control systems for drugs, and patient stratification for custom drugs (pharmacogenomics).



Georgetown University Hospital
Washington, D.C.

Five Centers of Excellence

The Lombardi Comprehensive Cancer Center

Neurosciences, the Institute of Transplantation

Hepatobiliary Diseases

Gastroenterology, and

Peripheral Vascular Surgery

by José R. Martí, MD

GENETICS AND BREAST CANCER
BRCA-1 and BRCA-2

Cancer ranks high among the most common forms of serious illnesses that affect mankind. Most cancers involve both sexes, some affect women predominantly and others attack only men. The aggressiveness of the various forms of cancer also varies, some are more serious than others, a few can be prevented but many cannot. Emphasis then lies on awareness and early diagnosis. We also recognize that certain lifestyles and environmental factors are known to predispose to cancer, but the truth is that we still do not know what causes cancer in the majority of cases. The technology for the diagnosis and treatment of cancer has improved gradually over time, but most of it is still based on surgery, medical treatments and radiation modalities.

Some cancers are thought to have a genetic background and we are now exploring the role genetics can play in breast cancer. So, this is what this article tries to explore. The basic genetic information was already discussed in the last issue of ***Caduceus.***

A gene is the basic unit of heredity. Genes are contained within the chromosomes in the nucleus of cells. Humans have 26 pairs of chromosomes including the XX female chromosomes and the XY male chromosomes. For practical purposes the genetic map of humans has been completed as a result of the Human Genome Project, though there are still areas of very tightly packed DNA that require clarification. Nevertheless, we know that genes can undergo various types of alterations, such as mutations among others, for a variety of reasons some of which are often environmental.

The family history of breast cancer has always been very relevant in the differential diagnosis of this illness. However, only 5-10 % of breast cancer is considered to be hereditary. Research scientists and physicians discovered that a group of Ashkenazi Jewish women, whose ethnic roots came from Eastern Europe, were particularly prone to breast cancer. The research done on these large families with a higher than expected propensity to develop breast cancer led to the detection of genes related to this finding. These genes were called **BRCA 1** and **BRCA 2**. Women with altered BRCA 1 & 2 genes show a 13.2 % incidence of developing breast cancer which is 3 to 7 times higher than expected when compared to the general population. Further research demonstrated that this was not exclusive to families of Ashkenazi descent, but that these mutations could exist among women from other ethnic groups as well. Later, it was also discovered that these genes may also be related to higher incidences of ovarian, prostate and even colon cancer as well. The detection of this genetic mutation became important enough that an objective and consistent technology has been developed to titrate these mutations, which are now part of the modern staging system and the list of prognostic factors related to breast cancer.

Everything in scientific research, as in life itself, has pros and cons. The repercussions of this new development, positive and negative, are listed below.

Potentially positive:
BRCA 1 & 2 testing is now part of the panel of tests performed on women with breast cancer, which helps determine prognostic factors and may even help to choose adjuvant therapy.

- Carrying out BRCA 1 & 2 surveillance testing might help women follow certain guidelines regarding risk avoidance lifestyles, to include the possibility of prophylactic surgery, chemoprevention, and even gene therapy, although the last two are still experimental.

Potentially negative:
It is not clear yet whether traditional risk factors such as age, hormonal influences including

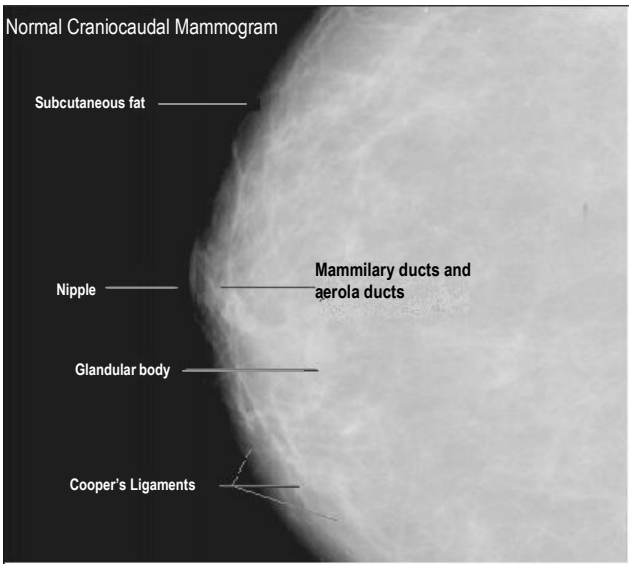
hormonal replacement therapy, dietary fat content, exercise and environmental factors including alcohol consumption among others might be affected by genetic mutations of the BRCA genes, or vice versa.

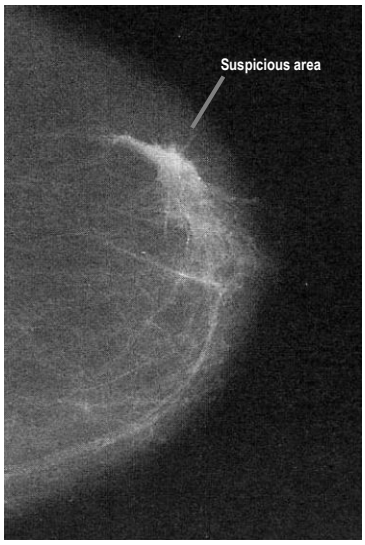
Genetic testing for these mutations is not covered under most insurance plans and at this time these tests are very expensive. It may also cause discriminatory risks for women when they apply for health insurance or employment benefits.

In short BRCA 1 & 2 testing is a relatively new development that appears to be opening new doors into a new field of technology, not only in cancer but also for other forms of disease as well. The role of genetics in medicine is gradually turning into a whole new industry, creating a new and ever increasing array of complex terminology that translators, interpreters and other linguistic professionals need to explore.

Sources:

- "Center for Restorative Breast Surgery - BRCA." Center for Restorative Breast Surgery - Welcome. May 2009 http://www.breastcenter.com/introduction/genetics_brca1.php
- "Breast Cancer Screening." Lawrence Berkeley National Laboratory. May 2009 www.lbl.gov/Education/ELSI/screening-main.html
- www.lbl.gov/Education/ELSI/screening-main.html/ en.wikipedia.org/wiki/BRCA1





A little bit of everything…

What is a Patient-Centered Medical Home (PCMH) - A PCMH is a team-based model of health care led by a personal physician who provides care throughout a patient's lifetime to maximize health outcomes. This form of practice includes the provision of care for acute and chronic illnesses as well as preventive services. The PCMH is a team of health professionals that work collaboratively under the guidance of the personal physician in charge of the team. This new concept has the full support of all American Academies, Colleges and Societies of the various specialties of medicine. See article cited below.

Medscape: Free CME, Medical News, Full-text Journal Articles & More. May 2009 http://www.medscape.com

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Humor and the Brain - the brain contains a network of regions that underlie the appreciation of jokes. The principal area is the prefrontal cortex that becomes more active the funnier the joke is perceived to be. The latter is more obvious in extroverted people who tend to enjoy funny material. In introverts, on the other hand the region known as the amygdala, besides the prefrontal area, lights preferentially. This is the kind of information that newer imaging techniques are able to gather.

Source: "Humor and the Brain." Scientific American, May-June 2009

World of words - there are some 7,000 languages in the world - and one dies every two weeks. With loss of a language goes the cultural knowledge associated with it built throughout generations and really irreplaceable. Linguists who travel around the world find it very difficult, nearly impossible to communicate with the speakers of language currently near extinction. Source: The Linguists. May 2009 www.thelinguists.com

Historically, genius and madness have often appeared simultaneously. The movie The Soloist, currently showing, is a true story of schizophrenia in a highly accomplished musician. Source: The Soloist | Official Movie Site and Trailer | Now Playing. May 2009 www.soloistmovie.com

What is MRSA? This is the acronym for **Methicillin-resistant Staphylococcus aureus.** *Staphylococcus aureus*, also known as "staph", is a bacterium commonly found on the skin or in the nose of healthy people. People in whom a bacterial strain is present without causing any symptoms of infection or disease are known as "colonized" or "carriers" of the bacteria. An infection can develop when the bacteria enter the body through a cut or abrasion or the respiratory tract and then proliferate. In the 1950s, methicillin and other penicillins were commonly used to treat such infections. But in 1961, staph strains resistant to methicillin (MRSA) were discovered in the UK. Although these strains were originally identified as methicillin-resistant, they are also resistant to other beta-lactam antibiotics, including penicillins (oxacillin, amoxicillin) and cephalosporins (cephalexin).

MRSA was first identified in US hospitals in the 1970s. Then in the 1990s, new MRSA strains appeared that were resistant to sulfa drugs, tetracyclines, and clindamycin – everything but vancomycin. The most common initial presentation of a MRSA infection is a small red bump that resembles a spider bite. Over a period of a few days, the bump becomes larger, more painful, and develops into a deep, pus-filled boil, which may be accompanied by fever or rash. Although most MRSA infections affect only the skin and tissue, some are more severe and can result in sepsis, toxic shock, necrotizing pneumonia, and even death. The annual number of MRSA infections in US hospitals more than doubled between 1999 and 2005. Until recently, MRSA primarily affected individuals with weakened immunity, such as young children and the elderly. Now it is now is found in otherwise healthy people. Thorough hand washing is essential when coming into contact with possibly contaminated surfaces, such as public bathrooms, hospital beds, and other surfaces.

Source: Patricia Thickstun, Asst. Administrator Medical Division

[***Ed note:*** In English bacteria is the plural form of bacterium. In Spanish *bacteria* is the singular and *bacterias* the plural.]

What is a hospitalist? - a hospitalist is a physician, usually specialized in internal medicine, family practice or pediatrics who dedicates his time to practice his specialty within a hospital. They handle admissions of patients who do not have a private physician and are also used by practicing physicians to cover for them by seeing their hospitalized patient when they can't be available. Usually the only time you would be seen by a hospitalist is during an ER visit or hospital stay. Most do not have their own practice or provide follow up care. Hospitalists have been well received by practicing physicians as they are available within the hospital for coverage, if needed. Hospitalists may be hired to handle on-call services for physicians after hours or weekends and holidays. The Society of Hospital Medicine projects that the hospitalist work force will top 30,000 within a few years. Source: www.physicianspractice.com

What is an attending physician ? This term is used loosely with various meanings. The one most favored, medically-speaking is: The physician who is medically and legally responsible for the care of a patient during a hospitalization. (Source: **Lexicon - Dictionary of Health Care Terms, Organizations and Acronyms**, published by Joint Commission on Accreditation of Healthcare Organizations).

While a patient is hospitalized, particularly in a teaching hospital, there may be several physicians involved in his/her care, lab, x-rays, consultants of various kinds, physical rehabilitation, if needed, etc. However, it is the attending physician, whose name is usually prominently displayed in the medical chart, who has overall responsibility for the patient. Only he/she can discharge the patient and is then responsible for dictating the discharge summary.

Urinary and sexual anatomy, how are medical specialties divided? - nephrologists are medical kidney function specialists. Urologists look after the external sexual anatomy of men and the urinary bladder and ureters (that connect kidneys to bladder) of men and women. Gynecologists care for the external and internal sexual anatomy of females. Sources: medical dictionaries

Health and fitness, what is the difference? - Health is generally taken to mean simply the absence of disease. Fitness is the body's capacity to use oxygen. If you are not physically fit you will huff and puff going upstairs or simple walking fast to catch the bus. The fitter you are the more physical activity you can carry out without great effort. Increased cardiac and pulmonary activity i.e., huffing and puffing, is what becomes obvious whenever you require an effort beyond your fitness capacity. Source: various sources

Brain anatomy and physiology
Harvard neuroanatomist Jill Bolte Taylor describes her experience while having a stroke, which includes a clear narrative and illustrations of the anatomy and physiology of our brain hemispheres. A must see.

Source: Bolte Taylor, Jill. "Stroke of insight | Video on TED.com." TED: Ideas worth spreading. June 2009 http://www.ted.com/index.php/talks/jill_bolte_taylor_s_powerful_stroke_of_insight.html

Street Terms: Drugs and the Drug Trade - an invaluable tool for the translator. A compilation of **all** known drug-related street terms currently used, all cross-referenced where possible. A single term or similar terms may refer to various drugs or have different meanings reflecting geographic and demographic variations in slang. How many terms can you think of for marihuana? Did you know that a simple **420** means marihuana use or that an **A bomb** is a marijuana cigarette laced with heroin or opium? How about a **3750** meaning marijuana and crack rolled in a joint?

This comprehensive list was prepared by the Executive Office of the President's Office of National Drug Control Policy (ONDCP)

www.whitehousedrugpolicy.gov/pdf/street_terms.pdf

INTERESTING WEBSITES

http://www.zonamedica.com.ar/categorias/marcodiccionarios.htm
A large collection of medical and health related dictionaries and glossaries in Spanish and English.

http://blog.fxtrans.com/
Medical translation blog. Interesting medical translation topics developed at this site.

http://www.usal.es/~revistamedicinacine/Indice_2005/OBRA/PRINCIPAL21.htm
Revista de Medicina y Cine / Journal of Medicine and the Movies
Published by the University of Salamanca

http://umm.edu/ency/index/eng_index.htm
UNIVERSITY OF MARYLAND MEDICAL CENTER
Medical Encyclopedia Index
SYMPTOMS-INJURY-DISEASE-SURGERY-NUTRITION-SPECIAL TOPICS-POISON

http://www.scribd.com/doc/9224337/-Dict-of-Medical-Abbreviations2-
Dictionary of Medical Abbreviations

Check Dr. Rivera's Medical Translation Section at the Translation Journal, a web-only publication for translators at http://translationjournal.net/journal/ . The April 2009 issue deals with The Sounds of Clinical Medicine.

Caduceus
A PUBLICATION OF THE MEDICAL DIVISION OF ATA
PITFALLS AND CAVEATS | 12

The Evolutionary Origins of Hiccups and Choking

by Elena Sgarbossa, M.D.

What are hiccups for?

"Hiccup" (or "hiccough") is an onomatopoeic name derived from the sound "hic." The medical term, *singultus*, may have originated from the Latin *singult* which roughly means "catching one's breath while sobbing."

Hiccups occur when the diaphragm contracts in spasms. This causes a sharp involuntary inhalation, or breathing inward, that ends abruptly when the glottis (i.e. the area of the vocal cords) is closed by the epiglottis (i.e., a flap of soft tissue at the top of the larynx that covers the larynx when we swallow: Fig. 1). This produces the "hic" sound. The intrathoracic pressure falls. Often, only one hemidiaphragm contracts (usually the left). These movements are always involuntary.

> *To make sense of our own bodies, we need to examine the history we share with everything from microbes and worms to fish and primates*
>
> *Neil Shubin*

Episodes of hiccups tend to be brief. A hiccup bout is an episode lasting more than a few minutes. Protracted attacks can also occur, and carry significant morbidity. As a young cardiology trainee in Buenos Aires I remember seeing at our hospital a few patients during their recovery from cardiac surgery (which at the time always required sternotomy and intrathoracic manipulation), who had post-operative hiccups for days.

What are hiccups for? Why do humans and other mammals experience them? Contrary to protective reflexes such as coughing and sneezing, hiccups appear to serve no purpose. It has been proposed that the hiccup is an evolutionary antecedent to modern lung respiration.

Hiccups may be rooted in two different layers of our ancient ancestry: one shared with fish, another with amphibians. Humans "inherited" the respiratory nerves from fish. One pair of such nerves, called phrenic, runs from the base of the skull through the thorax down to the diaphragm, to which it supplies innervation. This long path exposes the nerves to injury. They may become irritated and trigger hiccups. Biologist Neil H. Shubin, author of *Your Inner Fish* states that a rational design of the human body would include phrenic nerves that arise in a spot nearer to the diaphragm. We are, however, heirs to ancestors with gills—the original targets of the phrenic equivalents. Gills are much closer to the neck than the diaphragm is.

While the tortuous course of the phrenic nerves may derive from our fish ancestors, the hiccup itself may relate to the past we share with the primitive air breathers (such as lungfish) and with amphibians, suggests Christian Straus of the University of Calgary. The neural and muscle pattern of activity in hiccups has been observed in tadpoles. Tadpoles use both lungs and gills to breathe. When using their gills, tadpoles need to swallow water into their throat and then pump it through their gills. However, they must prevent the water from reaching the lungs. How do tadpoles achieve this? By closing their glottis (and thus their breathing tube) while inhaling sharply. The way they breathe with their gills is, in fact, a form of extended hiccup.

In humans and other mammals, then, hiccuping appears to be solely a vestigial phenomenon— one that we owe to our ancient fish and amphibian ancestors. It has, as far as we know, no purposeful role.

Sources:

"Understanding phylogenies." Understanding Evolution. May 2009 http://evolution.berkeley.edu/evolibrary/article//evo_05

"BBC NEWS | Health | Why we hiccup." BBC NEWS | News Front Page. May 2009 http://news.bbc.co.uk/2/hi/health/2730251.stm

Shubin, Neil H. "The Evolutionary Origins of Hiccups and Hernias: Scientific American." Science News, Articles and Information | Scientific American. May 2009 www.scientificamerican.com/article.cfm?id=this-old-body.

Why are we so likely to choke on food?

Choking is the interruption of respiration by internal obstruction of the airway. Choking on food is an alarmingly common cause of accidental death, including that of approximately 75 children per year in the United States. A substantial number of people who survive an episode of choking develop permanent brain damage from sustained hypoxia.

Why do we choke on food? The primary reason—aside from circumstantial factors such as inebriation or an inability to chew—is our anatomy. Evolution shows that humans have evolved a voice box, or larynx, that is lower-seated than that of chimpanzees (our closest cousins). This disposition creates a space in the back of our throat that allows food to reach the larynx (Fig. 1). It is also why we were able to develop speech.

A newborn baby's larynx resembles that of most non-human mammals. It protrudes like a snorkel into the nasal passage. This gives babies (as well as apes) the ability to drink and breathe at once. But at three months of age the baby's larynx starts descending, opening a cavity behind the tongue over the next few years and creating an expanded pharynx. In adolescent boys the larynx drops a second time. This makes their voice deeper.

The low-seating larynx that enabled human speech was probably already in place 600,000 years ago, before modern humans appeared, in *Homo heidelbergensis*. (In the genus *Australopithecus*, the larynx had not yet descended). Recent research suggests that the descent of the larynx was not related to an incipient form of speech—which appeared nearly half a million years later—but to the quality of groaning. Indeed an exception to the high-seating larynx norm among non-human mammals is the deer. According to investigators W.T. Fitch and D. Reby, both the male red deer and the male fallow deer have a descended larynx that allows their groan to deepen. As the groan travels from the animal's vocal chords through its throat and mouth, it is modulated to create formant frequencies. For most deer, these frequencies indicate body size and are closely linked to the animal's dominance status. A deeper groan produced by a low larynx communicates a size exaggeration. This may have provided an evolutionary advantage for both intimidating rivals and mating. Female deer find a deep groan attractive. Male deer with a genetic mutation coding for a lower larynx (than that of its ancestors and peers) would have had a higher mating success than contemporary deer without the mutation. Hence, the lower larynx trait was transmitted and became prevalent. It is not unlikely that similar factors may have played a role in the descent of the hominid larynx. Many millennia later, *Homo sapiens'* low larynx enabled humans to utter a greater range of consonants and vowels than our relatives *Homo neanderthalensis* and apes. Language was born.

What about the anatomy of birds who speak? Parrots have a double larynx. One larynx is the airway; the other, called syrinx, is at the base of the trachea. It is the syrinx that gives origin to the vocalizations parrots make. Most sounds, however, are produced by extremely precise movements of their tongue. The anatomy of parrots, thus, does not allow for choking.

As for us humans with a lone, low larynx, we have the anatomy that set the stage for speech and complex language. For this privilege, we pay an unfortunate price. We are far more likely to choke on food than most other mammals are.

Whether red and fallow deer are also highly likely to choke on food—or whether within the next one hundred millennia they will develop speech—are currently open questions.

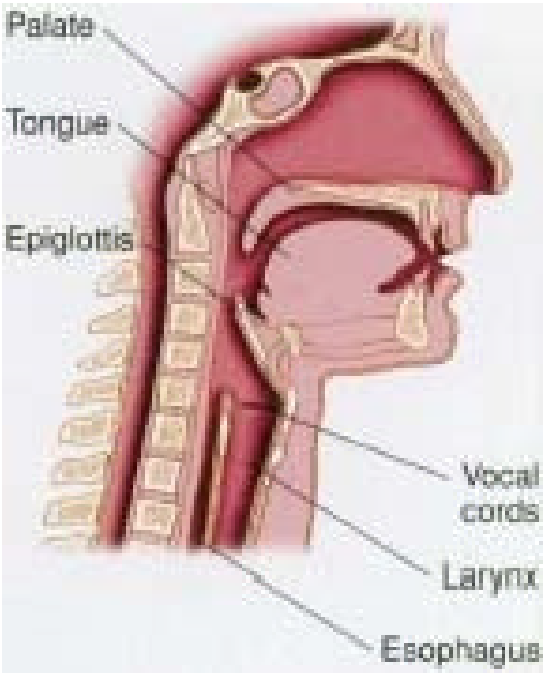

Figure 1
The epiglottis is a flap of tissue that covers the larynx when we swallow, so that food travels to the esophagus.

Sources:
Harris, C.S., S.P. Baker, G.A. Smith, and R. M. Harris. "Childhood Asphyxiation by Food: a National Analysis and Overview." JAMA, 251(19184): 2231-2235.

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Jefferson Memorial in the distance, Tidal Basin, and cherry blossoms in bloom

Caduceus
A PUBLICATION OF THE MEDICAL DIVISION OF ATA
HEMATOLOGY SERIES | 15

by Jim McAninch, MD

TARGETED THERAPY
Targeted therapy of Lymphoma

A recent ***Caduceus*** issue featured an article on monoclonal antibodies and their importance in the treatment of disease (as well as diagnosis). Treating lymphoma with the monoclonal antibody rituximab (Rituxan®) has represented a major advance in so-called targeted therapy.

Targeted Therapy of Chronic Myelocytic Leukemia

Chronic myelocytic leukemia can now be treated as well with "targeted therapy." Targeted therapy is a rather general term, mostly applying to treatment of malignant disorders with agents that specifically target one entity on the malignant cell. In the case of chronic myelocytic leukemia, the treatment inhibits a biochemical signal to cell proliferation. How researchers "thought it up" and developed a small-molecule compound which inhibits the abnormal (tyrosine kinase) signaler in this specific type of leukemia, is indeed remarkable.

To learn how this successful scientific journey began, we must start in Philadelphia. A few decades ago, Philadelphia-based researchers Peter Nowell and David Hungerford made the amazing discovery that virtually all patients who suffered from chronic myelocytic leukemia, a fatal disease, had a strange chromosomal abnormality in which part of the 9th chromosome was relocated onto the 22nd chromosome and part of the 22nd is relocated on the 9th—the so-called C-9, C-22 translocation [t(9-22)].

No one really knows why that translocation happens, but what is known is that in the process, a nasty fusion gene is produced. The gene is called BCR-ABL. The protein whose production the gene directs acts as a kinase, or signaler, causing uncontrolled cell proliferation in the bone marrow, specifically in the myeloid line—thus, the name myelocytic. The disease usually has a chronic phase lasting a few years and then progresses to the rapidly fatal blastic, or acute phase.

The small-molecule agent, called imatinib, or Gleevec®, successfully inhibits the action of the tyrosine kinase protein, driving the disease into remission. The response rate is high, though further mutations in the abnormal gene can occur, causing relapse and progression into the acute phase.

Gleevec is one of the most successful targeted therapies for malignant disease to be developed so far. The Gleevec paradigm may be very important to the development of targeted therapy for a number of malignancies in which a genetic defect or gene re-arrangement results in faulty signal transduction to cell proliferation.

Targeted Therapy in Breast Cancer Treatment

Another widely used targeted therapy is the drug trastuzumab (Herceptin®). Herceptin improves the outlook for breast cancer patients whose tumors express the human epidermal growth factor receptor-type 2 called HER2. Herceptin is a monoclonal

antibody and is used in combination with chemotherapy.

Gene Therapy and RNA Interference

Finally, one form of targeted therapy mostly in the laboratory research stage involves cellular delivery of DNA or RNA that encodes a specific protein which is missing or defective in the patient's own cells. A second potential therapy, RNA interference, is a methodology to silence a gene's expression using double-stranded RNA. The future clinical potential of both gene-altering therapies is very exciting. Some very limited human clinical research has been initiated with these two promising "targeted therapies."

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Steps to the US Capitol

Abraham Lincoln Memorial

Words about words and related words

"pain killers" - a medical expression that refers to a wide variety of medications used to control pain, from simple over-the-counter remedies to strong analgesics that require prescriptions. It's a non-specific expression that does not refer to any particular kind or type of medications intended for the control of pain.

hay fever - is really a misnomer since it is not really caused by hay and it does not produce a fever. It is the colloquial name given to allergic rhinitis, a seasonal allergy caused by airborne particles characterized by itchy eyes, runny nose, nasal congestion, sneezing, itchy throat. It is a common problem particularly in the spring when vegetation arises and pollens are in the air. And what is pollen? The very fine, dust-like grains or powder formed by a flowering plant and dispersed into the air.

What is an *energy drink*? - a collective term given to commercially sold drinks intending to boost the energy of the consumer. Most of these beverages have sweeteners, herbs, amino acids and vitamins that really do not transform into or release body energy after consumption. It is usually the caffeine in them that gives the stimulatory boost.
Source: "How to Boost Your Energy." Consumer Reports on Health, May 2009: 1, 4+.)

What are the chances? - a question we live with all day long. What are the chances that the car will start in the morning, or that we will not be involved in a car accident, or even that we will have a good day? It's better to think of probabilities. The practice of medicine is really based on probabilities. If a woman has a positive mammogram, what are the chances that she, indeed, has cancer of the breast? Ten out of every 1,000 women with a positive mammogram turn out to have cancer. Of these 10, only 9 will test positive. Of the 990 women without cancer, about 89 nonetheless will test positive. So, understanding conditional probabilities, 87% of gynecologists believe that the best answer to the question is what they normally say: "one in 10".
Source:: Gigerenzer, Gerd, et al., "Knowing Your Chances: What health stats really mean." Scientific American MIND (April-May-Jun 2009)

ORTHO - A common prefix in medicine

ortho - from the Greek, meaning straight, normal or correct

- **orthodontics** - branch of dentistry concerned with the correction of dental abnormalities usually causing malocclusion (incorrect opposition and closure of dental surfaces)
- **orthopnea** - difficulty breathing upon assuming an erect posture.
- **orthostatic** - pertaining to or caused by standing erect. Orthostatic hypotension is a fall in blood pressure upon standing erect.
- **orthopedics** - branch of medicine concerned with the preservation and restoration of the function of the skeletal system, articulations and associated structures.
- **orthopedist** - the name given to an orthopedic surgeon.
- **orthotics** - orthopedic appliances or apparatus used to support, align, prevent or correct deformities or improve the function of movable parts of the body.
- **orthoptics** - a technique of eye exercises designed to correct the visual axes (plural for axis) of eyes not properly coordinated for binocular vision.
- **orthoscopic** - a normal undistorted vision

Source: "Ortho." Dorland's Medical Dictionary.

formed elements in blood - Blood is the only fluid tissue in the body. It transports and returns waste and carbon dioxide. Blood distributes nearly everything that is carried from one site to another in the body; for example, hormones are transported from the endocrine organs that produced them to the target organs. Whereas blood is a fluid it does contain formed elements, namely: erythrocytes (red blood cells), leukocytes (white blood cells) and thrombocytes (platelets). Red cells carry oxygen to tissues, white cells fight infection, platelets are necessary for normal coagulation.

Are You Ready to Interpret for a Mental Health Encounter?

by Zarita Araujo-Lane, LICSW
Edited by Vonessa Phillips

Most mental health encounters take place in primary care environments or in emergency rooms. According to the Bazelton Center for Mental Health Law, 25% of all primary care encounters involve a diagnosable mental illness and 50% of mental health problems are still not being diagnosed properly. The World Health Organization recommends that all medical providers "screen for mental health issues, assess and furnish care to those with mild or moderate disorders as well as those with severe mental health disorders that are stable".

So even if interpreters decide not to interpret in traditional mental health settings, they will certainly find themselves interpreting for patients with mental health issues. For example, in her assessment of a patient with possible memory impairments, a family doctor may conduct memory testing through the interpreter. Or an ER doctor may see a patient presenting with suicidal ideation, one who is experiencing his first psychotic break, or one who suffers from substance abuse issues. In all of these situations, the interpreter will be practicing mental health interpretation.

Are you ready to interpret in mental health settings?

When you think of the term "mental health", what is your first reaction? How would you describe a person who suffers from a mental illness or disorder?

Mental illness is prevalent in today's society. According to the Centers for Disease Control (CDC), "One in two Americans has a diagnosable mental disorder". The reality, then, is that all of us, as individuals, have been impacted to some extent by someone who suffers from a mental illness.

Unfortunately, our society's take on mental illness has caused the subject to remain taboo in many circles. When we or someone we love suffer from a mental illness, we generally do not talk about is as much as we would talk about any other type of chronic illness. Often, insurance companies do not pay for outpatient psychiatric visits. So the mentally ill are likely to live in silence and isolation. The CDC estimates that, "Less than half of the adults get help. Only one third of the children get help. Suicide is the 8th leading cause of death in the US. 81 people commit suicide each day in the US. Ethnic minorities are less likely to seek professional help".

Those who suffer from mental illness are often forgotten and feared by society. Mental Health interpreters can be the linguistic and cultural bridge between the provider and the patients' worlds. But no matter how good we are as interpreters in terms of facilitating communication from one language to another, in mental health interpreting we encounter extra "weight" – the stigma attached to the seeking of mental health treatment and the shame a patient often feels when there is a third person in the session.

Alliances between the patient and the interpreter can happen because of our own feelings towards the illness and because of how we perceive the clinician should react to the situation. For example, if you are interpreting in an outpatient setting, you may experience some of the "fuzziness" that comes with a clinician's efforts to establish rapport (therapeutic relationship) with the patient. However, if you are in an emergency room and the patient is a chronic visitor with substance abuse issues, you may feel that the provider does not attempt to develop any type of rapport with the patient. In this case, the provider's job is to assess the level of intoxication and to plan for the patient's sobriety. The provider may even appear to treat the patient in an aggressive or confrontational way in an attempt to break the patient's denial. These actions might be understood by the novice interpreter as unfair, and the interpreter may begin to develop positive feelings about the "poor" patient and negative feelings about the "bad" doctor.

To be an effective mental health interpreter, one must have some understanding of how mental illness is described in the clinical world perspective. In the 1840s, there was only one category of mental illness, "idiocy/insanity". Since then, there has been an attempt to collect and to standardize guidelines on how to assess and treat patients who suffer from a mental illness. It has taken many generations for us to arrive at today's definition of what constitutes a mental illness or disorder.

One help in understanding mental illness is the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The DSM-IV is the result of an effort of more than 1,000 professionals working subdivided in at least 13 work groups and a 27 member task force of mainly psychiatrists and a few psychologists with specific expertise in the different disorders covered in this manual.

A big break in mental health diagnosis and treatment came in 1994, when, after different versions of the DSM, the DSM-IV was printed. It was considered a revolutionary assessment tool where homosexuality was no longer considered an illness and there was a lot more attention focused on specific mental health disorders experienced by the different ethnic groups living in the US.

According to its most recent edition (DSM-IV TR), mental illness is defined as a "clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress, pain or disability or with significant risk of suffering pain, disability or an important loss of freedom…whatever its original cause, it must currently be considered a manifestation of a behavioral, psychological or biological dysfunction".

The DSM-IV TR is divided into five different axes - each with very clear descriptions of main behaviors or symptoms and the need to rule out (differential diagnosis) similar symptoms or potential medical conditions that can cause such symptoms. Age, precipitants, length of time, and connectivity with social and work activities are all important variables considered in the differential diagnosis. Axis I, II and III name the disorder or disorders which are a cluster of symptoms. The other axes describe the holding environment and the functioning level of an individual in society.

Axis I - Clinical disorders (depression and others)

Axis II - Personality Disorders. (Borderline personality disorder and others). Mental Retardation. Learning Disorders. Motor Communication Disorders. Pervasive Developmental Disorders. Attention-Deficit and Disruptive Behavioral Disorders. Feeding and Eating. TIC Disorders. Elimination Disorders. Other Disorders of Infancy or Adolescence (breakdown).

Axis III -General Medical Condition. When a patient has a mental disorder related to a medical condition. The disorder should be recorded on Axis I plus Axis III w/specification of medical condition.

Axis IV - Psychosocial and Environment Problems. Problems related to interaction w/legal system/crime**.** Other psychosocial and environment problems.

Axis V - Global Assessment of functioning Reporting of the clinician's judgment with two main pieces: 1- covers symptoms/severity, 2- covers functioning.

If a patient's symptoms do not meet the criteria as required but have many of the features, they can be classified as Not Otherwise Specified or NOS. In addition, the status of the diagnosis can change and its symptom severity is assessed accordingly:

In Partial Remission: full criteria of category was previously met, but now there are fewer impairments.

In Remission: full criteria of category was previously met, but now there are no impairments, no symptoms or signs, but it should be noted.

Prior History: full criteria of category was previously met, but now there are no impairments, no symptoms or signs, but it should be noted. There is a full recovery.

The Global Assessment of Functioning on Axis V describes and supports Axis I and Axis II by assessing the seriousness of the patient's ability to function in the outside world. This ability is measured on a scale from 0 to 100. A rating of 100 indicates superior functioning, while a rating of 60 indicates moderate symptoms (depressed mood, mild insomnia, etc.). A patient who receives a rating of 10 is considered to be in "persistent danger of severely hurting self or others *(e.g. recurrent violence)* or persistent inability to maintain minimal personal hygiene or serious suicidal act with clear expectation of death".

A patient who rates low on a scale of global assessment may require hospitalization. If the patient refuses hospitalization, he/she can be forced into it for a period of 48 hours while a legal guardian is appointed and the involuntary hospitalization is argued by representatives of the patient and the hospital in front of a judge. Terminology differs from state to state, and in Massachusetts it is said that a patient who is involuntarily hospitalized has been "pink slipped".

So how can you get ready to interpret for a mental health encounter?

Be careful with your roles as clarifier, culture broker and advocate while in the session. All these interpreter roles play an important part in the diagnosis of the patient, so we are not asking you to not act on them, but we are asking you to know when to do it so that your actions are appropriate to the clinical environment and do not interfere with assessment or treatment.

The mode of interpreting changes from illness to illness. If there is logic, most likely the interpreter would use the consecutive mode. If there is no logic, the interpreter should use the simultaneous mode and at times resort to summarization if patient is making sounds without meaning or creating new words. Patients under the influence of a substance or with psychotic features can present with slurred speech and incoherent thoughts. So if the patient states, "My boss is my fish", the interpreter should relay this message "as is", despite the fact that it does not make sense to the interpreter.

The management of the flow, the content of the interpretation and any challenges that may arise should be discussed if possible during a pre-session, and, without fail, during a post session. This is when interpreters might use roles other than conduit with a view to helping the provider understand what may have been missed in the session and, hopefully, to strategize for future sessions.

Interpreting names of medications can be dangerous for the interpreter, and it is best to use the English names when interpreting the provider's words to the patient. Do not try to match American medications with those in your country, as the chemical composition is often different. Below, we provide you with a list of common medications so you cam be familiar with their names as you hear these from the provider.

When in doubt, ask the provider to write down the name of the medication, and always take note of dosages in your notebook, as it is important to get this right when interpreting the provider's treatment instructions. Some psychotropic medications can kill a patient if taken in an improper dosage, so repeat the instructions back to the provider to be sure that you have accurately transmitted them to the patient.

Per the table on page 21, we have divided a list of antidepressants into four main categories of antidepressants: 1) SSRI's. 2) MOAI's, 3) TCAs. 4) others.

In future articles, we will cover the mental status examination with a clinical case presentation to illustrate its application and we will write more about the roles and the modes of interpreting for mental health patients.

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ANTIDEPRESSANTS

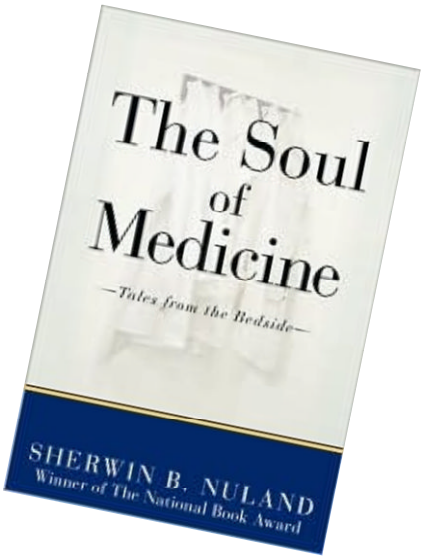
SSRI's (selective serotonin reuptake inhibitors)	**MAOI's** (monoamine oxidase inhibitors)	**TCA's** (tricyclic antidepressants)	**Others** Effexor is one of the "newer"antidepressants. SSRI's have fewer side effects than TCA's or MOAI's (not as sedating, fewer anticholinergic side effects, safe in overdose)
Paxil (paroxetine) Prozac (fluoxetine) Zoloft (sertraline) Celexa (citalopram) Lexapro (escitalopram oxalate) Luvox (fluvoxamine)	Nardil (phenelzine) Parnate (tranylcypromine)	Adapin (doxepin) Anafranil (clomipramine) Elavil (amitriptyline) Endep (amitriptyline) Ludiomil (maprotiline) Norpramin (desipramine) Pamelor(nortryptyline) Pertofrane(desipramin Sinequan (doxepin) Surmontil(trimipramine) Tofranil (imipramine) Vivactil (protriptyline)	Effexor (venlafaxine) Cymbalta (duloxetine) Desyrel (trazodone) Buspar (buspirone) Edronax,Vestra (reboxetine) Remeron (mirtazapine) Serzone (nefazodone) Wellbutrin (bupropion)

Adapted from http://www.antidepressants.ws/list-of-antidepressants.html

Caduceus
A PUBLICATION OF THE MEDICAL DIVISION OF ATA

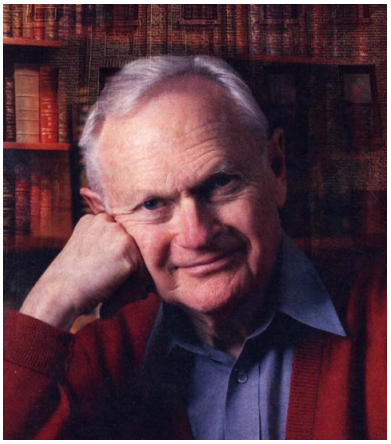
by Rafael A. Rivera, MD, FACP

The Soul of Medicine: Tales From the Bedside.
by Sherwin Nuland, MD

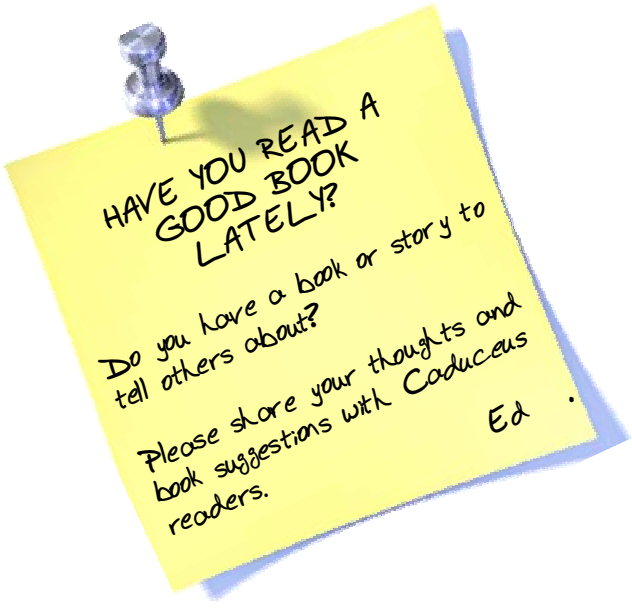


Nothing is more compelling than a good medical storyteller who has a lifetime of experience and the capacity to capture in writing the details of the daily encounters that physicians go through in the practice of medicine. Such is the case with Dr. Sherwin Nuland, whom I first met thru his writings while preparing a presentation on end of life issues, reflecting on the cases of Karen Ann Quinlan and Nancy Cruzan, the forerunners to the still vivid memories of the case of Terry Schiavo, and all the national and international attention that her case attracted.

The Soul of Medicine is such a collection, which I highly recommend to anybody with time and interest in medical storytelling.



Dr. Sherwin Nuland is a Clinical Professor of Surgery at the Yale School of Medicine, where he also teaches bioethics and medical history. He is a Fellow at Yale's Institute for Social and Policy Studies and the author of over 10 books including *How We Live, How We Die, Reflections on Life's Final Chapter: The Uncertain Art: Thoughts on a Life in Medicine; The Art of Aging; The Doctors Plague;* and others.



Influenza - The Animal Connection

by Patricia Thickstun

Besides humans, several species of animals are susceptible to influenza - birds, ferrets, pigs, marine mammals and horses. At present, perhaps the most widespread animal flu vaccination campaign has targeted chickens – millions of doses have been administered since 2005, primarily in Asia. The most recent large-scale influenza pandemic was caused by the Hong Kong influenza strain. In 1968-69 this new strain killed an estimated one million people worldwide (1)(2). Most human influenza is caused by type A influenza virus, of which there are various subtypes - H1N1, H1N2, H3N1. H3N2 and H2N3. The H stands for hemagglutinin, the protein responsible for the ability of the virus to bind and infect its host cell. The N stands for neuraminidase, a viral surface protein that allows the replicated viruses to be released into the respiratory tract. The strains involved in the Hong Kong pandemic were H2N2 and H3N2, which contained genes from avian influenza viruses. These new flu virus strains were created when genetic reassortment occurred in Asian swine that were simultaneously infected with both avian and human viruses. This resulted in a new influenza virus containing genes from both human and avian influenza strains.

Triple-reassortant swine influenza viruses - viruses that contain human, swine and avian influenza gene segments – were first identified in American swine in 1998; 12 cases of human infection with such viruses were reported in the US from 2005 through 2009. In early April 2009, an unexplained increase in respiratory disease was reported in La Gloria, Veracruz, Mexico. This was followed by an unexplained increase in atypical pneumonia and respiratory illness in the state of Oaxaca, Mexico. In Mexico City, reports of influenza-like illness started in March. By April, there were clusters of rapidly progressing severe pneumonia affecting thousands of people in Mexico City and San Luis de Potosi; nearly 100 had died by the end of the month. In the US, a sophisticated genetic test known as real-time reverse-transcriptase polymerase-chain-reaction (RT-PCR) identified a novel influenza A H1N1 swine-origin virus (S-OIV) in samples from 2 unrelated children living in adjacent border counties in Southern California. This virus was genetically identical to viruses isolated from patients in Mexico. By mid-April, the virus had been detected in high school students living in Guadalupe County, Texas – 200 miles from the border with Mexico.

This new influenza strain, commonly known as “swine flu,” was determined to have a unique genome composition that had not previously been identified (3). Scientists call this one a “quadruple reassortant virus” because it has two additional gene segments derived from Eurasian swine viruses (4). As of June 5, 2009, more than 29,000 cases of this novel virus have been identified in 69 countries in North, Central, and South America; Europe; North Africa; Asia; and Australia. Because this is a new influenza virus, most people have no specific immunity to it, and it will take some time for a new vaccine to be developed.

“Swine flu” gives an incomplete, if not erroneous clinical impression. Pigs infected with flu viruses under experimental conditions do get flu symptoms such as nasal discharge, coughing, sneezing, and conjunctivitis. Upon pathological examination areas of consolidation in the lung (pneumonia) are also found (5). However, direct transmission from pigs to humans is, in fact, quite rare. People who work with pigs, especially those with extensive exposure, are at increased risk of becoming infected with swine influenza strains. There is, however, no need to stop eating properly handled pork meat or slaughtering pigs, as has already happened in many parts of the world. Otherwise, the swine flu in humans feels much like regular seasonal flu. It begins with the usual mild upper and lower respiratory symptoms (sneezing, nasal discharge and cough), with or without fever or chills, progressing to moderate systemic symptoms, i.e., general malaise, fatigue, muscle aches, and pains This will be the case with the vast majority of cases. In the minority, it can also be followed by general debility, vomiting, and diarrhea (severe). Pneumonia can occur if the lungs are clinically involved and, if the brain is affected, a viral encephalitis-

like picture follows with severe headache, visual disturbances, confusion, disorientation, maybe a convulsion. Occasionally, death occurs particularly in the frail elderly as well as when influenza is superimposed on a patient already ill from some other cause.

Antiviral medication such as oseltamivir, marketed by Roche under the trade name Tamiflu (6), is available by prescription as capsules or in liquid form. It can be used prophylactically in settings where spread may occur with dire consequences, such as nursing homes, assisted living facilities and dormitories. As treatment, according to CDC, it should be taken within two days of the first symptoms since it could be effective in preventing virus replication.

Every year flu viruses change so the protective antibodies from last year's flu vaccine may not help us this year. Thus, the seasonal vaccine is produced from 3 of the most prevalent strains seen worldwide during the early part of the year. Producing a vaccine takes several months, from isolating and growing the virus strains to producing and distributing the vaccine.

For the most complete information, general and specific: cdc.gov (enter flu in the search slot, includes videos) or simply search via Google.

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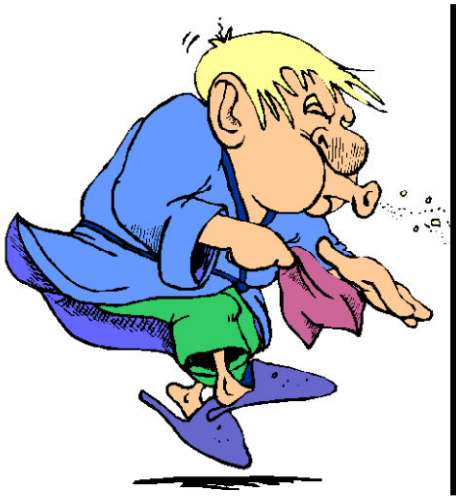

WORDS to Know

- **outbreak** - sudden occurrence of an epidemic in a limited geographic area (focal point)
- **seasonal** - appearance of disease at a particular time of the year
- **endemic** - prevalent in a particular locality, region, or population
- **epidemic** - occurrence of cases of human disease in an area in excess of the number of cases normally expected for that disease in that area at that time
- **pandemic** - epidemic that affects a very large area, usually hemisphere-wide or worldwide

1. Caduceus, the Medical Division newsletter, is published three times a year. It is available for download from the MD website. Do you read Caduceus?

n = 161	%	count
No	53	85
Yes	47	76

2. If "No," why not?

n = 74	%	count
Unaware of its existence	51	
Insufficient time	15	
no hard copy	2	
other	6	

3. What types of articles and topics would you like to see in Caduceus?
Terminology/glossaries 40

Language-specific
Chinese
Danish
English
French
German
Latin
Italian
Spanish

Clinical research/trials

Cultural issues

Disease-specific
Alzheimers
Anemia
Asthma
Diabetes
Fibromyalgia
MRSA
Vitiligo

Ethics

Global Health Issues

Glossaries/terminology

Linguistic issues
Quality assessment
Tone/register

Medical interpreting
Certification
Encounter management techniques
Interviews
Legal aspects
Skills
- Memory improvement
- Note-taking

Telephone interpreting

Medical translation
Terminology management

Medical topics/specialties
Anatomy & Physiology
Alternative medicine
Biochemistry
Bioengineering
Cardiology
Gastroenterology
Genetics
Geriatrics
Homeopathy
Neurology
Obstetrics/Gynecology
Oncology
Ophthalmology
Preventive Medicine
Psychiatry/Psychology
Radiology
Surgery

Medical assessments/evaluations

Medical equipment/devices

Medical/surgical/diagnostic procedures
Medical records translation
Abbreviations
Diagnostic tests
Forms
Informed consent
HIPPA
Instructions
Laboratory tests
Handwritten records

Medications/pharmaceuticals

Professional advice for translators/ interpreters
Business practices
Starting out
Stress management

Resources for translators/interpreters
Online glossaries
Book reviews
Dictionary reviews
Conferences, seminars, workshops, training
Employment opportunities
Professional organizations for medical linguists
Sample translations of various forms particular subjects

4. What recommendations do you have for writers who might submit articles to Caduceus? (Please provide writers' name, title, and workplace contact information: address, telephone, email.)

[Several writers were suggested. Not included here, pending confirmation.]

5. The MD website can be viewed at http://www.ata-divisions.org/MD. What are your recommendations for additional links on the MD website?

Business Development Tools
Hospital websites
Domestic medical organizations
Technical resources (e.g.,Merck)
Glossaries of medical terms from different languages
Highly specialized medicine-gastroenterology, cancer treatments, etc.
National organizations
Terminology sources, glossaries, etc.
International health bodies
Models of medical reports
Pharmaceutical information home pages
Educational institutions that offer courses/ training for medical interpreters
Educational events taking place nationally (eventually internationally why not)
Medical/anatomical glossaries Glossaries dealing with medical professional titles
Job postings

6. Do you attend ATA Annual Conferences?

n = 156	%	count
Regularly	15	24
Occasionally	46	72
Never	39	60

Note that "ever" attendance is 61% among survey participants

7. What topic(s) would you like to have covered in the medical track at the ATA Annual Conferences?

n = 56

Case Studies

Clinical research/trials

Cultural issues

Disease-specific
AIDS
Alzheimers
Diabetes

Ethics

Global Health Issues

Glossaries/terminology
Terminology research

Linguistic issues
Quality assessment
Tone/register

Medical interpreting
Advocacy and the role(s) of medical interpreters
Certification
Encounter management techniques
Interviews
Legal aspects
Skills
Memory improvement
Note-taking
Language-specific practice
Telephone interpreting
Simultaneous interpreting
Skills assessments
Skills workshops
Standards
Stress management

Medical translation
Backtranslation
Terminology management
Hospital forms
Medical research articles

Medical topics/specialties
Anatomy & Physiology
Alternative medicine
Biochemistry
Bioengineering
Cardiology
Chemotherapy
Emergency Medicine
Gastroenterology
Genetics – common disorders
Geriatrics
Homeopathy
Monoclonal antibodies
Neurology
Neuroscience – brain surgery
Obstetrics/Gynecology
Oncology - chemotherapy
Ophthalmology
Orthopedics – joint replacement
Pharmacology
Preventive Medicine
Psychiatry – common disorders
Radiology
Statistics
Surgery

Medical assessments/evaluations

Medical equipment/devices

Medical/surgical/diagnostic procedures

Imaging
Laboratory tests

Medical records translation
Diagnostic tests
Forms
Informed consent
Instructions
Laboratory tests
Handwritten records
History and physical

Medications/pharmaceuticals
Mental Health

Professional advice for translators/ interpreters
Business practices/tips
Independent contractors Language
Technology

Job Hunting Tips
Starting out
Stress management

Resources for translators/interpreters
Online glossaries
Specialized dictionaries
Specialized books
Conferences, seminars, workshops, training
Employment opportunities
Professional organizations for medical linguists
Sample translations of various forms particular subjects

8. Have you attended an ATA Division Mid-Year Conference?

n = 152	%	count
No	83	126
Yes	17	26

9. What topic(s) would you like to see covered at a MD Mid-Year Conference?
n = 33

Case Studies

Clinical research/trials

Cultural issues

Disease-specific
AIDS
Alzheimers
Diabetes
Pathology of common diseases
Education/training
Academic institutions offering degrees/ diplomas/certification

Ethics

Global Health Issues

Glossaries/terminology
Glossary workshops (a presentation on the cardiovascular system followed by language specific exercises and related glossary)

Linguistic issues
Quality assessment
Tone/register

Medical interpreting
Advocacy and the role(s) of medical interpreters
Certification
Encounter management techniques
Role of the interpreter in end-of-life issues/ grief counseling
Legal aspects
Skills
Memory improvement
Note-taking
Language-specific practice
Telephone interpreting
Simultaneous interpreting
Skills assessments
Skills workshops
Standards
Stress management

Medical translation
Common problem areas
Disease-specific terminology
Hospital forms
Laboratory equipment terminology
Medical research articles
Quality control
Software

Medical topics/specialties
Anatomy & Physiology
Alternative medicine
Biochemistry
Bioengineering
Cardiology
Chemotherapy
Emergency Medicine
Overview of folk / traditional medicine of the Hispanic World
Gastroenterology
Genetics – common disorders
Geriatrics
Histology
Homeopathy
Monoclonal antibodies
Neurology
Neuroscience – brain surgery
Obstetrics/Gynecology
Oncology - chemotherapy
Ophthalmology
Orthopedics – joint replacement
Pharmacology –drug interactions
Preventive Medicine
Psychiatry – common disorders
Radiology
Statistics
Surgery

Medical assessments/evaluations
Differential diagnosis
Cultural challenges
Medical equipment/devices

Medical/surgical/diagnostic procedures
Imaging
Laboratory tests

Medical records translation
Diagnostic tests
Forms
Informed consent
Instructions
Laboratory tests
Handwritten records
History and physical

Medications/pharmaceuticals

Mental Health

Professional advice for translators/ interpreters
Business practices/tips
Independent contractors Language
Technology
Job Hunting Tips
Starting out
Stress management

Networking opportunities
Quizzes/contests/fun activities

Resources for translators/interpreters
Online glossaries
Specialized dictionaries
Specialized books
Conferences, seminars, workshops, training
Employment opportunities
Professional organizations for medical linguists
Sample translations of various forms particular subjects

10. Are you interested in making a presentation at a MD Mid-Year or Annual Conference?

n = 164	%	count
No	87	142
Yes	13	22

11. At which conference would you be interested in presenting? (You may choose one or both.)

n = 16	%	count
MD Midyear	NA	11
ATA Annual	NA	10

12. What topic(s) would you be interested in presenting at the MD Mid-Year Conference?

Freelancing as a medical interpreter: how to market yourself, what markets are available, how to manage your business, how to bill, taxes, CV, etc. I would like to offer a more comprehensive and VERY practical view from the point of view of a working freelance interpreter.

geriatrics in middle east

Global Clinical Trials - the importance of a reliable translation and its impact on the quality of the data
I teach medical translation at the University of Mainz in Germersheim and teach workshops for medical translators, but it would depend on what is needed.
medical interpretation and translation in Nursing Schools
Medical Interpreters as Translators
Need for professionalism by interpreters

Ophthalmology/optometry
Terminology (either general medical terminology or terminology of a specific field)

varieties of medical texts and the related translation challenges

Healthcare Interpretation Programs

Help MD's understand roles of interpreters

Pathology

13. What topic(s) would you be interested in presenting at the ATA Annual Conference?

Medical Interpreters as Translators

Ophthalmology/optometry

Understanding monoclonal antibodies

Healthcare Interpretation Programs

Pathology

Translating the clinical research report

14. If you are willing to consider presenting at one these conferences, please provide your name, telephone, email address, and the best time to contact you.

[Several presenters identified. Not included here, pending confirmation.]

15. If you were considering attending a Medical Division Mid-Year Conference, what factors would be most important to you? Rate the following on a scale of 1 most important to 5 least important.

1.Location
2. Cost
3. Speakers
4. Presentation topics
5. Time investment
6. Professional networking
7. Associated leisure activities (tours, banquets, etc.)

16. Do you have any preference for the site of the 2009 Medical Division Mid-Year Conference?

n = 147	%	count
No	51	75
Yes	49	72

17. What are your top three preferred sites for the 2009 Medical Division Mid-Year Conference? New York, DC, CA

Jefferson Memorial during 4th of July Celebrations

This is a comprehensive list of online resources that was tested prior to this publication. All sites correspond to their description. Bear in mind that online websites may be modified, changed, or deleted by their respective site managers. If you find such an example, let us know at caduceusnewsletter@gmail.com

COMPREHENSIVE SITES

******Health On The Net Foundation - this is an extraordinary multilingual site (Eng - Fr - Ger - Spa - Port - Ital - Dutch). Should you enter, for example, Dental Prosthesis you will get a hierarchy of information that lists all possible aspects of the topic to choose from: definition, synonyms, research articles, web resources, medical images, medical news, medical conferences, clinical trials and more depending on the main subject requested**
http://debussy.hon.ch/cgi-bin/HONselect?browse+C14.907.800

***** MedBioWorld - this site links you to all online medical dictionaries plus acronyms, abbreviations, encyclopedias and glossaries, including a Multilingual Glossary of technical and popular medical terms in nine European Languages**
http://www.medbioworld.com/MedBioWorld/TopicLinks.aspx?type=Reference%20Tools&&category=(All)&&concept=Medicine

***** MediLexicon - this site contains links to medical abbreviations, medical dictionary, ICD-9 search (definitions and codes used to code and classify mortality and morbidity date, drug search, medical equipment & surgical instruments and other areas such as hospitals, associations, pharmaceuticals, etc.**
http://www.medilexicon.com/

*** **healthfinder.gov /// site of the US Dept. of Health and Human Services will link to:**

- **Medline plus Medical Encyclopedia (every page is also available in Spanish)**
- **Deciphering medspeak**
- **Kids Health Dictionary**

*** **MedlinePlus: Outstanding site with information on medical conditions, diseases, drugs and supplements, a medical encyclopedia, and a link to Merriam-Webster's Medical Dictionary online. Entire website available in Spanish. New multiple language section has information in 40 languages (more extensive in some languages than others). Interactive tutorials (audio and video) in English and Spanish provide great explanations of conditions and diseases, tests and diagnostic procedures, surgery and treatment procedures, prevention and wellness.** http://www.medlineplus.gov

*****National Center for Biotechnology Information - a world of scientific and medical information sponsored by the National Library of Medicine and the National Institutes of Health**
http://www.ncbi.nlm.nih.gov/

**** Medical Matrix - Guide to Internet Clinical Medicine, Specialties, Diseases, Clinical Practice, Literature, Education, Healthcare Professionals**
http://www.medmatrix.org/index.asp

****HEALTHLINE - Health Search Engine: Diseases, Conditions, Drugs, Symptoms, Dictionary of Health and more.**
http://www.healthline.com/

The Free Dictionary links to Medical, Legal and Financial Dictionaries, Acronyms, Idioms, Encyclopedia
http://www.thefreedictionary.com/
OneLook. - multipurpose site that links to dictionaries, reverse dictionaries, glossaries, definitions, translations and other possibilities.
http.www.onelook.com/

Mediindia.net - this site has among many others sections, Homeopathic Medicine, Alternative Medicine, Doctors Lists, Directory of US Hospitals, and more.
http://www.mediindia.net/

MedicineNet.com - multipurpose medicine site produced by doctors. Sections include: Diseases and Conditions, Symptoms and Signs, Procedures and Tests, Medications, Health and Living and a MedTerms dictionary
http://www.medicinenet.com/script/main/hp.asp

Webcontent.gov - a guide to managing U.S. Government Websites has this Spanish Style Guide and Glossaries for U.S. Government Web Sites
http://www.usa.gov/webcontent/spanish_guide/spanish_index.shtml

PROZ - The translation workplace. You enter the query word or phrase and get an inmediate response.
http://www.proz.com/kudoz/english_to_spanish/medical_general/1498628rollover_trial.html

MRI Glossary -
http://www.fonar.com/glossary.htm

Royal College of Surgeons - Modules
http://www.rcsed.ac.uk/eselect/Select_modules.htm

ACRONYMS:

Acronym Finder
http://www.bioinformatics.org/textknowledge/acronym.php

http://www.medindia.net/acronym/Index.asp?page=2&startpage=1&Alpha=A
This site contains some 461 medical acronyms as well as Latin medical terms

HARRISON ON LINE ESP - SPANISH MEDICAL ACRONYMS

http://www.harrisonmedicina.com/acronyms.aspx?termIndex=D

http://www.all-acronyms.com/
This site has acronyms in many categories: business, medical, education, government, science, technology, education and others. Quite good.

ACRONYMS - Medical & Professional Degrees and Credentials
http://www.sandiegobizmart.com/tools/t3_acronym_glossary.htm

ACRONYMS - Holistic Practitioners Certifications & Credentials
http://www.sandiegobizmart.com/tools/t3_acronyms_holistic.htm

ACRONYMS - HIV-AIDS (PAHO) - Look it up in the PAHO site

Archaic Medical Terminology
http://www.antiquusmorbus.com/English/EnglishP.htm

MEDICAL DICTIONARIES:

Stedman's Medical Dictionary
http://www.stedmans.com
Dorland's Medical Dictionary
http://www.dorlands.com/wsearch.jsp

Medical Dictionary Online
http://www.online-medical-dictionary.org/

MERCK SOURCE - Dorland's Medical Dictionary - a world of health information. Includes a health encyclopedia *en español*
http://www.mercksource.com

The Free Dictionary -- with links to Medical, Legal, Acronyms, Financial Dictionary
http://medical-dictionary.thefreedictionary.com/

Med Terms Dictionary - part of MedicineNet.com
http://www.medterms.com/script/main/hp.asp

Nursing Dictionary
http://www.rtstudents.com/rnstudents/rn-dictionary.htm

Medical Transcriptionist Desk
http://www.mtdesk.com/frame.php?frame=main

Online Graphic Dictionary (VISUWORDS)
http://www.visuwords.com/fullsize.php

Dictionary of Cancer Terms (English and Spanish)
http://www.cancer.gov/dictionary/

National Cancer Institute Drug Dictionary
http://www.cancer.gov/drugdictionary/

SURGICAL SITES

Online Surgical Dictionary
http://onlinesurgicaldictionary.com/

Plastic Surgery Dictionary
http://www.aaronstonemd.com/plasticSurgeryDict.html

American Brain Tumor Dictionary - by the Massachusetts General Hospital. Dictionary, Clinical Centers, Research, Education, Support Groups.http://neurosurgery.mgh.harvard.edu/abta/diction.htm

PSYCHIATRIC / PSYCHOLOGICAL SITES -
Site sponsored by the American Psychiatric Association
http://www.healthyminds.org/

John F. Abess, MD Terms in the field of psychiatry and neurology
http://www.abess.com/glossary.html

GLOSSARIES

MULTISOURCE GLOSSARY OF MENTAL HEALTH, ACRONYMS AND LAW
http://smhp.psych.ucla.edu/conted/gloss.htm

Glossarist - this site links you to medical glossaries and medical dictionaries
http://www.glossarist.com/glossaries/health-medicine-fitness/medical.asp

Managed Care Terminology Glossary
http://www.pohly.com/terms.html

Clinical Trials Glossary
http://www.clinicaltrials.gov/ct2/info/glossary

Biotechnology in Food and Agriculture Glossary
http://www.fao.org/biotech/index_glossary.asp

Glossary of Biotechnology and Genetic Engineering
http://www.fao.org/DOCREP/003/X3910E/X3910E00.htm

World Health Organization
http://www.who.int/en/

UNIVERSAL MEDICAL DEVICE NOMENCLATURE SPA-ENG
http://www.uapered.org

MICROSOFT TERMINOLOGY TRANSLATIONS - this file contains over 12,000 English terms plus the translations for up to 59 different languages
http://www.microsoft.com/globaldev/tools/MILSGlossary.mspx

DENTAL TERMINOLOGY

American Dental Association Glossary of Dental Terms
http://www.ada.org/public/resources/glossary.asp .
There is a Spanish version at this site - Glosario de Términos Dentales

A Dictionary of Dental Terms
http://www.bracesinfo.com/glossary.html

Dental Terminology
http://www.qualitydentistry.com/dental/terms.html

Dental Terminology
http://www.azda.org/Public/QA/Term.asp

Dental Terminology - this an excellent multilingual dental site
http://debussy.hon.ch/cgi-bin/HONselect?browse+E06.780.345#Search

Dental Terminology
http://www.geocities.com/acambaro.geo/DENTISTA.htm

Dental Procedures Terminology
http://www.dentalplans.com/moreinfo/dentaldefinitionsandprocedures.asp

MEDICAL INTERPRETATION

Health Care interpretation - The Terminology of Health Care Interpreting - A glossary of terms
http//www.ncihc.org

ARCHAIC MEDICAL TERMINOLOGY

Archaic Medical Terms - a remarkable site. Not only old medical terminology, but folk and slang terms, symbols, abbreviations, common causes of death in the past and more.
http://www.paul_smith.doctors.org.uk/ArchaicMedicalTerms.htm

Old Medical Terminology - a long listing of old medical terms with its modern equivalents, in alphabetical order.
http://www.rootsweb.com/~usgwkidz/oldmedterm.htm

VARIOUS SUBJECTS

All about soaps - definitions and acronyms Eng > Spa
http://www.ccnphawaii.com/glossary.es.htm

Glossary of Vascular Terms
http://wwwp.medtronic.com/Newsroom/LinkedItemDetails.do?itemId=1199741324094&itemType=glossary&lang=en_US

Virtual Psychology Classroom - Online texts, Psychiatric Disorders, Psychology references, Resources, Careers and Education
http://allpsych.com/

ENLACES EN ESPAÑOL

Pequeño glosario inglés-español de términos jergales y coloquiales en medicina 2da parte: Fernando Navarro: - Revista Panacea

Primera parte A-J
http://www.medtrad.org/panacea/IndiceGeneral.htm#Vol 6 -21

Segunda parte K-Z
http://www.medtrad.org/panacea/IndiceGeneral.htm#Vol 7-23

Vocabulario inglés - español de bioquímica y biología molecular
http://www.biorom.uma.es/contenido/Glosario/index.html

Wikilengua del español
http://www.wikilengua.org/index.php/Portada

Organización de Salud y Seguridad en el Trabajo
http://www.mtas.es/insht/EncOIT/Index.htm

Diccionario Reverso Collins para inglés, francés, español, alemán, italiano, ruso y chino
http://diccionario.reverso.net/

Diccionarion de siglas médicas y otras abreviaturas y términos médicos relacionados con la codificación de las altas hospitalarias
http://www.scribd.com/doc/2085717/Diccionario-de-Siglas-Medicas

Diccionario Ilustrado de Términos Médicos
http://www.iqb.es/diccio/s/sa1.htm

Don't forget our Medical Division listserv where you can pop in translation questions and receive prompt responses in English, Spanish, French, or German from your peers.

Most Frequently-used HIV / AIDS Acronyms
Siglas más comunes Relacionadas al VIH / SIDA

ENGLISH ↓	ESPAÑOL
"3 by 5" - 3 million people on antiretroviral treatment by 2005	"3 millones para el 5" - 3 millones de personas con tratamiento para el 2005
AIDS - Acquired Immune Deficiency Syndrome	SIDA - Sindrome de Inmunodeficiencia Adquirida
ART - Antiretroviral Therapy	TAR - Terapia Antirretroviral
ARV - Antiretroviral	ARV - Antirretroviral
BCC - Behavior Change Communication	CCC - Comunicación para el cambio de comportamiento
BPB - Biennial Program Budget (PAHO)	BPB (por su nombre en inglés) - Programa Presupuestario Bienal (OPS)
CAREC - Caribbean Epidemiology Center	CAREC (por su nombre en inglés) - Centro de Epidemiologia del Caribe
CARICOM - Caribbean Community	CARICOM (por su nombre en inglés) - Comunidad del Caribe
CCM - Country Coordinating Mechanism	MCP - Mecanismo de Coordinación de Pais
CDC - Centers for Disease Control and Prevention (US)	CDC (por su nombre en inglés) - Centros para del Control y la Prevención de enfermedades (Estados Unidos)
CONCASIDA - Central American Congress on HIV/AIDS	CONCASIDA - Congreso Centroamericano de Sida
DfID - Demographic for International Development	DfID -Demográfica para el Desarrollo Internacional del Reino Unido
DHS - Demographic Health Surveys	EDS - Encuestas Demográficas de Salud
FMI - Family Health International	FHI (por su nombre en inglés) - Salud Familiar Internacional
GCTM (By its name in Spanish) - Horizontal Group of Technical Cooperation on HIV/AIDS	GCTH - Grupo de Cooperación Técnica Horizontal en VIH/SIDA
GFATM - The Global Fund to fight AIDS, Tuberculosis and Malaria	GFATM (por su nombre en inglés) - Fondo Mundial de Lucha contra el SIDA, la Tuberculosis y la Malaria
HBV - Hepatitis B Virus	VHB - Virus de la Hepatitis B
HCV - Hepatitis C Virus	VHC - Virus de la Hepatitis C
HIV - Human Immunodeficiency Virus	VIH - Virus de Inmunodeficiencia Humana
HR - Harm Reduction	RD - Reducción del Daño
IADB - Inter American Development Bank	BID - Banco Interamericano de Desarrollo
IAEN - International AIDS Economics Network	IAEN - Red Internacional de Economia del SIDA
ICC - Interagency Coordinating Committee	CCI - Comité de Coordinación Inter-agencial
ICWLAC - International Community of Women living with HIV/AIDS in Latin America and Caribbean	ICWLAC (por su nombre en inglés) - Comunidad International de Mujeres que viven con VIH/SIDA para América Latina y el Caribe
IDU - Injected Drug User	UDI - Usuarios de Drogas Inyectadas
KAP - Knowledge, Attitude and Practice Study	CAP - Estudio de Conocimientos, Actitudes y Prácticas
KAPB - Knowledge, Attitude, Practice and Behavior study	CAPC - Estudio de Conocimientos, Actitudes, Prácticas y Comportamientos

AMERICAN TRANSLATORS ASSOCIATION
MEDICAL DIVISION

NOMINATION FOR DIVISION OFFICER

This form may be completed by either the nominator or the nominee. Both the nominator and the nominee must be members of the Medical Division, and the nominee must be an Active member of ATA.

① Nominee

Name of Nominee:	
E-Mail Address:	
Nominated for position of:	☐ administrator ☐ assistant administrator
Is the nominee aware of this nomination?	☐ yes ☐ no

② Nominee

Name of Nominator:	
E-Mail Address:	
Phone Number:	
Comments:	

Submitting the Form

Please submit by mail to MD Nominating Committee, 225 Reinekers Lane, Suite 590, Alexandria, Virginia 22314, or by fax to Attention Jamie Padula, (703) 683-6122.

Questions?

Contact the MD Nominating Committee:
Joan L. Wallace
joan@cptranslations.com or (402) 556-0086