

The Journal of

Southern California CLINICIANS

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OUR MISSION AND PURPOSE

Southern California Clinicians is established by the Medical Staff of Pomona Valley Hospital Medical Center in Pomona, California. It provides a journal for modern California clinicians to publish articles to share their clinical experiences and opinions with other physicians, show their academic achievements in medical practice, and to keep a permanent record of valuable case studies and case reports from all departments and all specialties in the modern era.

This journal invites all clinicians in southern California to contribute interesting articles and reviews, including new developments in clinical skills and techniques, or new procedures applied during their medical practice.

In order to maintain the highest quality, accuracy and academic dignity, we reserve the right to peer review all articles. Articles will be reviewed by our editorial board.

As a non-profit publication, we welcome and depend upon your generous contributions for our support. Contact _____ to make a contribution.

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We also accept letters to the editor.

In the Beginning...



Yin H. Lai, M.D.
Editor-in-Chief

Two adult birds build a stable nest. They then bring in soft and delicate grass to mix with their own fallen feathers, making a soft and tender bed. The mother lays her eggs in the nest and stays with them until the chicks hatch. The chicks are fed continuously by both adults until finally they grow feathers, stand up, flutter their wings while wobbling down the tree branch and...plummet earthward again, and again...and again. However, persistence pays off as the wings eventually hold and the chicks fly into the sky.

For my chicks to fly, I need enough encouragement and support—both mental and financial. Numerous articles came into my hands. I lovingly received these articles and handed them gently to the printing shops.

While pursuing this goal I experienced expectation, frustration, depression and finally excitement as I embraced this first edition of *Southern California Clinicians* to present to my colleagues.

This is our first try. You may see some mistakes or something missing. I would like to hear from all of you who are reading this magazine about any suggestions, corrections or opinions. You are welcome to write to me or to give me any articles you wish to share with the clinicians in southern California. Make this magazine a forum for publishing your articles and a forum for chatting. This is a place for you, me, and everybody else who calls him or herself a clinician here in southern California.

Depending on your future responses, this magazine may appear annually, biannually, or more often. Our editorial staff is made up of amateurs—very bright, professional, intelligent, talented and competent amateurs, but amateurs nonetheless. We are learning to change and improve from our experiences.

Here I would like to extend my sincere appreciation to everyone who supported this issue and helped make it

born to the world; especially our editorial board (listed on page 1), the president of Pomona Valley Hospital Medical Center, Mr. Richard Yocum, who generously donated the bulk of the financial resources necessary to make publication of this magazine possible, also to our Vice-President of Medical Affairs, Dr. Steven Reiner, M.D., who spent his valuable time in helping me to get some knowledges regarding how to publish a journal in professional ways.

Publishing this magazine is just like waiting for the delivery of a newborn. While “dystocia” almost happened, Dr. Harvey Cohen, the well-known endocrinologist came to me as a “Pitocin drip.” After hearing his “Come on!” several times, finally I made a few “pushes.” My son Borchien helped me to organize, and, a newborn is thus delivered!

I want to extend my many thanks to the following for their financial support:

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Congratulations to Southern California Clinicians!

Steven C. Reiner, M.D., F.A.C.E.P., F.A.A.F.P.
VPMA, Pomona Valley Hospital Medical Center

If you look carefully at the upper right hand corner of a print copy (or even the internet e-version) of The New England Journal of Medicine, you'll see their famous logo Aesculapius with several dates surrounding the figure. In 1812, the Massachusetts Medical Society began publishing this most prestigious of journals.

Perhaps it is a bit presumptuous to draw parallels between this first edition of our fledgling journal, which you now hold in your hands, and the widely read and respected NEJM, but they do share a common provenance: that of practicing physicians voluntarily and without recompense, getting together to share their experiences and knowledge in hopes of improving the science and art of medicine.

Meeting for the first time in July of 2001, a group of practicing physicians representing many specialties met in the Pomona Valley Hospital Medical Center Board Room. Many had editorial and research experience, and had been published in established, refereed journals. The expressed desire of this group was to develop a journal by and for the practicing Inland Empire physicians. Dr. Yin Lai, a Family Practice physician, and without whose vision and determination this project would not have gotten off the ground, already had the cover art selected: his hero, Charles Darwin! What better choice than the man whose careful, incredibly detailed and painstaking observations would change the way the scientific community—and indeed the world—would view the natural order of living things?

We hope to become a recognized source of useful clinical information, as well as a sounding board for healthcare issues and local problems. We have begun on a budgetary shoestring, and even this premier issue would not have been possible without the generosity of our local community hospitals.

Again, congratulations to “SCC;” although NEJM has a 190-year head start, I advise them to watch their backs!

Evolution

Yin H. Lai, M.D.
Editor-in-Chief

In March 2001, my wife and I visited my son in Ecuador, where he was a volunteer with the Peace Corps. While there we took a cruise to the Galapagos Islands 600 miles northwest of Ecuador, where Charles Darwin visited between 1831 and 1835. At the time, Darwin observed that the birds and tortoises of the Galapagos Islands tended to resemble species found on the nearby mainland, while the same species in the neighboring islands displayed different animal populations. He classified three distinct species of mockingbirds, and found that the Galapagos tortoises represented at least two species who were native to the islands, but to neither of the American continents. He noticed competition between single species, and recognized that within a local population those individuals with sharper beaks, longer horns, or brighter feathers generally had a better chance of surviving and reproducing than the other, less endowed members of the population. If such advantageous traits were passed on to new generations, he concluded they would eventually be predominant in future populations. Through the mechanism of natural selection, the traits of individuals that were less competitive gradually disappeared.

On this point I want to bring up the so-called Darwinian tautology: “The survival of the fittest is the survival of those best fitted to survive.” This is the basis of Darwin’s “On the origin of Species by Mean of Natural Selection” published in 1859.

I never would have thought that we, today’s physicians in the 21st century, would also have to follow Darwin’s rule set up 140 years ago: to evolve to survive in the huge swamp of managed care! We not only have to join a medical group but also choose which medical group can give us better cap payments. Even in a group, getting a poor monthly cap payment, we have to decorate our offices to pass the periodic audit from different health plans. We have to starve, eat fast, move

fast, and respond fast so we can clean up a crowded waiting room in a limited time to avoid a grievance report. We have to train ourselves to wake up early so we can make our hospital inpatient rounds in the mornings before we start our office hours because the hospital requests that we dictate H and P’s within 24 hours and make decisions to discharge patients in the morning. Then after, a rushed day, we are lucky to rush home to catch dinner with the family.

What kind of doctors are we? Is this what we wanted when we entered medical school? But if we don’t live this way today, how can we survive? No contracts, no patients — will we move out of California? Evolution! Natural selection! Oh, my dear Darwin! If I join another medical group, it has to be “Darwin’s Best Choice Group.” Viva Darwin!

A Modern Practice

In the recent development of managed care systems, practicing physicians are facing tremendous challenges. These challenges come from many aspects:

- 1 Medical economics and computerizing your office.
- 2 Pharmacological safety and efficacy.
- 3 Hiking premiums for professional liability insurance.
- 4 Regulations from state and federal levels.
- 5 Choosing contracts from medical groups, health plans, insurance companies.
- 6 Acquiring and maintaining hospital privileges
- 7 Renewing/updating medical knowledge.
- 8 Competing with T.V. and Internet doctors.
- 9 Complying with office audits from Medical Groups, health plans, state, OSHA and HIPAA
- 10 Dealing with Employer-Employee harassment

issues.

- 11 Accepting or ignoring managed care systems.
- 12 Maintaining an acquaintance with all medically related organizations and acts.

For example:

- Medical Board of California (MBOC, formerly BMQA)
- National Committee on Quality Assurance (NCQA)
- Health Employer and Data Information Set (HEDIS)
- Department of Health Services (DHS)
- Health Insurance Portability and Accountability Act (HIPPA)
- Emergency Medical Treatment and Active Labor Act (EMTALA)
- US Department of Health and Human Services (HHS)
- Department of Managed Health Care (DMHC)
- National Guideline Clearing House (NGC)
- Medicare Payment Advisory Commission (MEDPAC)
- Centers for Medicare and Medicaid Services (CMS)
- National Community Pharmacists Association (NCPS)
- Association of American Medical Colleges (AAMC)
- Joint Commission of Accreditation of Healthcare Organizations (JCAHO)

Now that you know the above listed organizations, you wonder where you are and what you are; especially, what's happening in your neighborhoods? To name a few, the specialists we family practitioners have been using as referrals extend from San Gabriel Valley to Inland Empire and vice versa. The hospitals are busy in establishing, dropping or renewing contacts with different health plans.

The IPAs are stuck in mud. In order to keep surviving, they keep evolving. They run all kind of puppets? All physicians and providers are the "puppets" of IPAs! Can you imagine that?

So, you have to get to know all the IPAs surrounding you. Here to some of the local IPAs (in alphabetical order) most us have contracts with:

- Alpha Care Medical Group (ACMG), using

PVHMC, SACH, DHM, CVMC

- Chaparral Medical Group, using PVHMC
- Chino Medical Group, using CVMC, DHM
- Upland Medical Group (owned by Promed) using SACH
- New Horizon Medical Group using DHM, PVHMC
- Physicians Healthway Medical Group (Covina/Rowland Hts)
- Prime Care Chino (owned by NAMM and OSP), using DHM, CVMC
- Prime Care Inland Valley Medical Group (IVMG, owned by NAMM) using SACH
- Promed Pomonal Valley Medical Group, using PVHMC

Among the above, some IPAs are owned by a single physician, some are owned by multiple shareholders. This is important because the ownership decides your income, either by invisible manipulation or on transparent sheets.

Well, I hope all of you choose wisely, practice safely, and get a much better income than last year. From passive become active. The puppet show will keep going, but all the puppets will be alive!

Free Service or Chargeable Service?

As a member of the Family Practice Development, you can be considered either a "Family Physician," "Family Doctor," or a "Family Practitioner." In other words, we are medical doctors who are specialized in Family Medicine.

Today the term "Family Medicine" has been broadened to "Community Medicine." As we can see through our daily practice, we are not only treating a family, we are also treating the community by treating work-related injuries, occupational diseases, drug abuse, and stress-related anxiety from long hours spent in traffic on our congested highways. We treat motor vehicle accidents, adjustment disorders, depression, obesity and hyperlipidemia and we have to keep in mind that we also have to respect human rights.

We are being asked by school nurses to fill out forms for students that include dosage and usage of medications, and we don't charge for filling out these forms.

We have been asked by attorneys to submit their client's medical reports or copies of medical records. Then you receive a letter that states: "according to our specialist's opinion, the service you provided should be worth \$XXX at most." Meanwhile an attorney will agree to pay his favorable chiropractor \$5,000 per case!

We have been asked by home care agencies to sign a certificate every two months for each of your patients under their care. They need your signature so Medicare, Medi-Cal, or other insurance companies will pay them, even if you have not seen the patient for several months due to their being bed-confined. They get paid for their service; the patient gets care through our orders and prescriptions — all through our signatures. Do we charge for our signatures on these forms?

When a patient needs an ambulance in order to go home from the hospital, a discharge order on the physician's order sheet is not enough. The ambulance company needs you to fill out a form to state the patient's diagnosis, why the patient needs an ambulance instead of a bus or a sedan, whether the patient needs to have IV or oxygen, etc., etc. This ensures that Medicare or Medi-cal or the insurance company pays them. They are paid because of your signature. How much is your signature worth? Have you ever charged the ambulance for filling out that form?

As all of us know that when you consult an attorney, whether by phone or in person, typically the charge can

be \$300.00 per hour or \$150.00 per half-hour. If the consultation takes less than half an hour, you have to pay a fee every half-hour.

So when a patient calls you on the phone after office hours, the patient tells you that they can't come to see you because they have to work. The patient has "no choice" but to call you after hours, at which time he states how sick he is, makes a diagnosis for you or has you make a diagnosis for him on the phone and then asks you to call his pharmacy to give him/her a prescription. After all, you are his family doctor—you see him at least once or twice last year. Do you charge him for a phone consultation? Do you charge him for a phone prescription? (You are responsible for any outcome from your volunteer service!)

If an attorney can bill you their way, why can't we bill our way?

But how? What codes would you use? Furthermore, if you were to start to bill your patients for these kinds of services (and most of your colleagues don't!) those patients who receive your bill will stop seeing you and take his family to another doctor who does not bill for these services.

So now you know how many free services are taking up your valuable time. Do we have any way to charge these services? Yes, but we have to unify hospital-wide, country-wide, nationwide, statewide...no matter what, we have to start somewhere — start from PVHMC, send suggestions to LACMA, CMA and AMA. If we don't, watch your title change from Family Physician to Provider. Are you still a doctor? How can the term "Provider" represent the "Physician"?

Health Care and Patients with Disabilities: An Introduction

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Healthcare for persons with developmental disabilities (persons who are born with or acquire a disability before the age of eighteen: cerebral palsy, spina bifida, cognitively delayed, etc.) and physical disabilities have been shifted from institutionalized settings to community primary health care providers with the assumption that their health care needs could be met. In reality, health care providers have not been able to provide for the chronic health care needs of this population in their regular practices, in the competitive and changing health care environment (Rimmer, Braddock and Fujiuma, 1993). Therefore, in many instances in community living, the physical health of persons with disabilities has actually declined due to lack of appropriate attention (Harris, Osborne, Plautz, Rolnick, Rodriguez, Simpsin, Summer, White, Topf, 1990). This article represents an attempt to bring healthcare providers up to date with laws and definitions while highlighting that Good Practice in basic communication skills for this unique patient population is the same as for patients without disabilities.

Laws And Definitions

The Americans with Disabilities Act (1990) defines *disability* as a physical or mental impairment that substantially limits one or more major life activities. It protects individuals from discrimination in employment, transportation, public accommodations, government and telecommunications. The first aspect of health care that needs to be implemented, in accordance with the ADA, is physical accessibility. The law requires persons with disabilities not be denied the “full and equal enjoyment of the goods, services, facilities, privileges, advantages or accommodation of any place” (HPH & W code 12182). Therefore, in addition to the absence of physical barriers, there is a requirement for attitudinal and program awareness as

well; perhaps that is the more challenging provision. In order only to not accommodate persons with disabilities, but indeed to encourage them to seek health care, an assurance that they are included in the consciousness of health care providers is required.

Developmental Disabilities

The term “developmental disability” actually originated as a political construct. The term was used to define a number of conditions that “arise during the developmental years, are anticipated to last indefinitely, and are considered to require lifelong care” (Developmental Delay Resources [DDR] 2000.) In California, the term developmental *disability* is defined as “attributable to a mental or physical impairment, manifesting before the age of 18 years, likely to continue indefinitely, and resulting in a substantial handicap in specific areas of function, and requiring specific and lifelong or extended care.” Areas of function include self-care, communication, learning, mobility, capacity for independent living, and transportation. In contrast, the federal definition expand the age of onset to 22 years of age and has a longer list of examples of functional limitation; and is inclusive of a wider range of disabilities such as all orthopedic and learning disabilities.

Physical Disabilities

Disabilities other than developmental disabilities are present in individuals presenting for health care, and are therefore included in the discussions of this article. Basic categories of physical disabilities can be considered as: musculoskeletal, chronic diseases, and sensory disabilities. All have different levels of influence on a person’s independence, on their level of functioning, and their medical needs. It is essential that the health care provider not wrongly assume that individuals with physical disabilities have cognitive disabilities as well.

They may have physical limitations that require specialized knowledge of the health care provider to deliver the best medical care. In no way should simple communication, however, as one uses with a person with a cognitive disability, be used during your interactions with these individuals. Such communication is seen as condescending and insulting.

Multiple Disabilities

Some individuals have more than one disability. For example, a patient with cerebral palsy may also have a cognitive disability. In this instance, s/he requires extreme patience on the part of the health care practitioner in order to help her overcome fears s/he may have regarding a physical exam. This may include showing the patient medical instruments and explaining their use. Using a model of the anatomy to show various parts of the body may be another way to assure the patient.

Conservatorship Issues

Many adults with developmental disabilities are their own guardians, and do not have conservators. A conservator is a court appointed person who then has legal authority to assist in specified arenas per court determination—these arenas can be specific to health care decisions, or financial decisions, for example. If a person does not have a guardian or conservator, s/he is considered able to sign consent forms for her/himself within parameters.

Informed Consent

By case law it is the ‘duty of a physician’ to disclose to a patient the risk/benefit/outcome information which is needed to make an informed decision regarding a proposed treatment or operation. Informed consent specifically relates to the material information that, provided by the health care provider to the patient, would be regarded as significant to a reasonable person being able to make a decision, both pro and con, and including the risks of not making a decision (BAJI 6.11).

It is a common misconception that persons with mental or physical disabilities are incapable of providing informed consent, but this is not necessarily true. According to California Probate code 810, in the absence of a court determination of non-competency, a person with a mental or physical disorder does have the right to give informed consent to medical treatment (and marriage contracts). Whereas informed consent is

required for treatment, it is not required to obtain a health history. Also, consent can be implied. For example, a person’s physical presence for a physical exam is considered consent for a physical exam. For routine exams and procedures, implied consent of presence typically suffices. Generally speaking, the higher the risk associated with a procedure, the greater becomes the health care provider’s obligation to obtain informed consent.

For persons with developmental disabilities, in the absence of a parent, guardian or conservator legally authorized to give consent, the director of a regional center or his designee may consent to such treatment on behalf of the person. The director may also initiate proceedings for the appointment of a conservator authorized legally (W & I Code of CA, Section 4655).

Regional Centers in California

California, via legislation known as the Lanterman Act, provides services to persons with developmental disabilities through 21 Regional Centers serving various counties throughout the state. Persons with developmental disabilities are essentially considered entitled to necessary support services if they qualify as eligible. Generally speaking, in California developmental disabilities include mental retardation, cerebral palsy, complex (difficult to control) seizure disorders, autism, and ‘associated neurological handicaps’ (i.e., conditions which present with similar limitations as developmental disabilities, and require services similar to those with developmental disabilities). Persons with spina bifida, for example, may be excluded if it is not considered ‘substantially handicapping.’ Therefore, eligibility for Regional Center services can be difficult to predict. Persons with injuries arising after the defined developmental age are not eligible. Persons considered as having strictly orthopedic conditions, such as cerebral palsy or sensory disabilities such as deafness are not eligible. However, public education sourced early intervention services and rehabilitation services may serve these people.

Services provided by Regional Centers include diagnosis and coordination and purchase of required services based on individual need. This may include physical or occupational therapy, supported work opportunities or group home-living arrangements, recreational opportunities, or coordination of health care needs. Regional Centers are not permitted to provide such services directly, but are mandated to provide case

management services to identify needs, purchase and/or coordinate such services as provided by generic resources within the community.

Early Intervention services are provided for children aged 0-3 years who are considered to be at risk of developing a disability. It is a federal program that, in California, is administered through the Regional Center system. Primary health care providers are depended upon to recognize delays in childhood development, or identify health risk factors that place children at risk for developmental disabilities, and are obligated to refer such identified children to Early Intervention Services.

Historical Perspectives on Services for Individuals with Disabilities.

A historical perspective is required to understand how care for persons with disabilities has evolved. Social work history teaches us that the first institution, which was built for housing persons with mental retardation, mental illness, and the terminally ill was constructed in 1848. Institutionalization, AKA the warehousing of humans, represents approximately a 100-year aberration in history from family care. By the 1950s parents were organizing, creating Associations for Retarded Citizens (ARCs), and advocating their desire to keep their 'disabled' children with the family, but demanding the recognition that social support systems would be required for them to do so. Their efforts were buoyed in the early 1960s by President John F. Kennedy's Committee on Mental Retardation which revealed some horrible conditions existing in the institutions for human care taking. In the past three decades of de-institutionalization of individuals with disabilities, health care for this population was incorporated into the practice of local community physicians. Formal links between persons with disabilities and health care providers were not, generally, initiated. The lack these links may have simply been the enthusiasm of a social movement; it may have been a lack of awareness of the special health-care needs of the population. With time, however, it has become evident that the transition from institutional to community living has had a negative impact on the health behaviors and the health care of persons with mental retardation (Harris, Osborne, Plautz, Rolnick, Rodriguez, Simpsin, Summer, White, Topf, 1990). Sociological data clearly reveal psychological benefits of living in dwellings rather than institutional settings (Larson & Larkin, 1989, in Rimmer, Braddock & Marks, 1995).

Good Practice

Communication Tips

- When talking to a person with a disability, speak directly to that person rather than through a companion or sign language interpreter. Although there may be times the care provider needs to be included in health care instruction, people with disabilities have the right to expect privacy, confidentiality, and to participate in decision-making regarding their health care decisions.
- Do not assume a person with a physical disability is either hard of hearing or has a cognitive disability is mentally challenged as well. Speaking more kindly is not typically necessary, or more helpful.
- The chaos of a traditional clinic setting may need to be altered. Chaos can contribute to confusion, increased spasticity, and feelings of loss of control (Werner, 1998). A friendly, quiet atmosphere, with well-organized staff, can prevent such incidents.
- When introduced to a person with a disability, it is appropriate to offer to shake hands. People with limited hand use or who wear an artificial limb can usually shake hands. (Shaking hands with the left hand is an acceptable greeting.)
- When meeting a person who is visually impaired, always identify yourself and others who may be with you. When conversing in a group, remember to identify the person to whom you are speaking.
- If you offer assistance, wait until the offer is accepted. Then listen to or ask for instructions.
- Treat adults as adults. Address people who have disabilities by their first names only when extending the same familiarity to all others. (Never patronize people who use wheelchairs by patting them on the head or shoulder.)
- Leaning on or hanging on to a person's wheelchair is similar to leaning on hanging on to a person and is generally considered annoying. The chair is part of the personal body space of the person who uses it.
- Listen attentively when you're talking with a person who has difficulty speaking. Be patient and wait for the person to finish, rather than correcting or speaking for the person. If necessary, ask short questions that require short answers, a nod or shake of the head. Never pretend to understand if you are having difficulty doing so. Instead, repeat what you have understood and allow the person to respond. The response will clue you in and guide your understanding.
- When speaking with a person who uses a wheelchair or a person who uses crutches, place yourself at eye

level in front of the person to facilitate the conversation.

- To get the attention of a person who is deaf, tap the person on the shoulder or wave your hand. Look directly at the person and speak clearly, slowly, and expressively to determine if the person can read your lips. Not all people who are deaf can read lips. For those who do lip-read, be sensitive to their needs by placing yourself so that you face the light source and keep hands, cigarettes and food away from your mouth when speaking.
- Relax. Don't be embarrassed if you happen to use accepted, common expressions such as "See you later," or "Did you hear about that?" that seems to relate to a person's disability. Don't be afraid to ask questions when you're unsure of what to do.
- For patients with cognitive disabilities, do not be afraid to try to take them a little farther than you think they can understand the material (e.g. covering details of sexually transmitted infections to patients you believe are not sexually active.)

Affirmative Phrases

Person with mental retardation

Person who is blind, person who is visually impaired

Person with a disability

Person who is deaf, person who is hard of hearing

Person who has multiple sclerosis

Person with cerebral palsy

Person with epilepsy, person with seizure disorder

Person who uses a wheelchair

Person who has muscular dystrophy

Person without a disability

Unable to speak, uses synthetic speech

Person with psychiatric disability

- Praise patients for their responses (e.g. "good idea;" "you're right") as you would patients without disabilities.
- If you don't know the answer to a patient's question:
 - o Admit it
 - o Tell the person you will try to get the answer and will contact them later
 - o Encourage questions

Using Positive Language

Positive language empowers. When writing or speaking to or about people with disabilities, it is important to put the person first. Group designations such as "the blind," "the deaf," or "the disabled" are inappropriate because they do not reflect the individuality, equality, or dignity of people with disabilities. Following are examples of positive and negative phrases. Note that the positive phrases put the person first.

Negative Phrases

Retarded, mentally defective

The blind

The disabled, handicapped

Suffers a hearing loss, the deaf

Afflicted by MS

CP victim

Epileptic

Confined or restricted to a wheelchair

Stricken by MD, physically disabled, crippled, lame, deformed

Normal person (implies that the person with a disability isn't normal)

Dumb, mute

Crazy, nuts

Adapted From Disability Etiquette Handbook
City of San Antonio College Disability Access Office, 1999

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Developmental Delay Resources - Maryland

A nonprofit organization dedicated to meeting the needs of those working with children who have developmental delays in sensory motor, language, social, and emotional areas.

<http://www.devdelay.org>

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Acute Biliary Obstruction with Cholangitis due to *Ascaris Lumbricoides* Infestation

Keywords: *Ascaris lumbricoides*, giant roundworm, intestinal, parasite, biliary, obstruction, jaundice

Abstract: Known commonly as the Giant Roundworm, *Ascaris lumbricoides* is an intestinal nematode which is found worldwide. Symptomatic infections are more commonly encountered in tropical and subtropical areas, though there is a small focus in the southeastern United States. Although the majority of *Ascaris lumbricoides* infections are asymptomatic, biliary obstruction and the resultant complications can occur as a result of worm accumulation and growth in the biliary ductal system. If the physician has no index of suspicion, such cases can be very difficult to diagnose. Here we present a case of a Southeast Asian immigrant who developed acute biliary obstruction secondary to *Ascaris lumbricoides* infection.

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Introduction

Ascaris lumbricoides is an intestinal nematode which is found worldwide. Symptomatic infections are more commonly encountered in tropical and subtropical areas, including Southeast Asia Vietnam, Brazil, southern Africa, and India's Kashmir Valley. Although the majority of *Ascaris lumbricoides* infections are asymptomatic, cholangiohepatitis and biliary obstruction can occur as a result of accumulation of ova or adult forms in the biliary ductal system. Here we present a case of a Southeast Asian immigrant who developed acute biliary obstruction secondary to *Ascaris lumbricoides* infection.

Report of a Case

In May of 1998, a 55-year-old-male presented to the emergency department for severe epigastric pain. He had been taking famotidine on a regular basis for his peptic ulcer disease, but the medication had not ameliorated the pain, which he described as constant and very sharp. There was no history of emesis, melena, or radiation of pain. However, the pain was accompanied by nausea and the patient vomited while in the emergency room. Morphine was administered for the pain, then the patient was admitted when his amylase was found to be (60 U/l) elevated at 160 U/L. (Total Bilirubin: 6.6mg/dL^{0.1-1.0}; SGOT: 109²²⁻⁴⁷; SGPT: 99¹³⁻³⁶ and Alkaline Phosphatase: 118 mU/ml⁵⁰⁻¹³⁶≠

The patient had noted some fever and chills the previous day, and on admission had a temperature of 102.4°F. He had epigastric tenderness without rebound or guarding, a negative Murphy's sign, and no hepatosplenomegaly. There was mild jaundice, but his

sclerae were anicteric. The patient was placed on an empirical antibiotic combination consisting of ceftazidime, metronidazole, and gentamicin.

Laboratory values revealed a white blood cell count of 21,500 with a differential of 79% segmented neutrophils, 17% bands, and 2% lymphocytes (2% monocytes and 0% eosinophils). An abdominal film was negative, but abdominal sonogram revealed a thickening of the gallbladder wall with mild dilatation of the biliary tree and free fluid noted adjacent to the gallbladder. A CT scan of the abdomen was subsequently ordered and revealed an acute inflammatory process in the right upper quadrant, an edematous gallbladder wall, "sludge" in the common duct, and dilatation of the biliary ductal system. The CT scan was followed by a radionuclide cholangiogram, which revealed acute biliary obstruction.

A surgical cholangiogram was performed which detected filling defects in the common duct as well as stricturing of the distal duct. An endoscopic retrograde cholangiopancreatography was performed in an effort to visualize the ductal defects (Figure 1). Following sphincterotomy, two large roundworms escaped from the incision site. The roundworms were judged to be morphologically consistent with *Ascaris lumbricoides* adults, and this was confirmed with stool ova and parasite.

Pathogenesis

Ascaris lumbricoides, also known as the giant roundworm, is the largest intestinal nematode found in humans, reaching up to 40 centimeters in length. Over one billion people worldwide are thought to be infected by this sexually dimorphic helminth, which lives in the small intestine of humans and domestic animals such as horses and pigs. Up to 240,000 eggs are laid each day by the mature female and excreted in the stool. When ingested by a new host, these eggs hatch in the intestine of the host, then invade the intestinal mucosa and pass into the bloodstream as small larvae. The larvae mature in the alveoli of the lungs, then pass up the bronchii, through the trachea into the throat, where they are swallowed. They then migrate to the intestine, where they mature into adults. The adults live in the lumen of the small bowel and do not attach to the wall. They take their sustenance from semidigested foods.

Ascaris lumbricoides is endemic worldwide, but its

highest distribution is found in Southeast Asia, where poor fecal sanitation exists, and where human manure is used for fertilizer ("night soil"). It can also be found in the United States, primarily in southeastern states.

The soil phase is required for development of *Ascaris* eggs, with a maturation period of several weeks. Average adult worm size is fifteen to forty centimeters in length. Once ingested by a human host, the incubation period is 60-75 days, and will usually occur in the jejunal lumen. Two to three months elapse between the initial infection and egg production by the adult female. *Ascaris* adults have a lifespan of one-two years, but are not infective. The sole infective form is the egg, which is very resistant to environmental stress. Due to the fecundity of the adult female, *Ascaris* can be infective for years. However, worm burdens are usually low in human hosts and rarely cause symptoms to develop. Clinical disease is acquired from prolonged exposure secondary to residence in an endemic area.

Presentation and Diagnosis

Most cases of ascariasis are asymptomatic. Clinical disease results from pulmonary hypersensitivity or from intestinal complications. Since the adult nematodes consume food that is in the small intestine, heavy



infestations can result in malnutrition, especially in small children living in underdeveloped countries. If large numbers of larvae accumulate in the alveoli during the maturation phase, pulmonary symptoms may ensue.

The lung phase occurs 9-12 days after ingestion of *Ascaris* eggs. Symptoms consist of an irritating, nonproductive cough with burning substernal discomfort aggravated by coughing or deep inspiration. Dyspnea and hemoptysis are less common manifestations of pulmonary infection. A seasonal pneumonitis can occur in previously infected and sensitized hosts if seasonal transmission is a feature in a geographical location. Plain chest films will reveal eosinophilic pneumonitis (Löffler's syndrome) with round or oval infiltrates several millimeters to several centimeters in size. These infiltrates may clear after several weeks.

In established infection, there are usually no intestinal symptoms. However, in cases of heavy infection, a large bolus of entangled worms can form, causing pain, small bowel obstruction, and can become complicated by perforation, intussusception or volvulus. Single worms can occlude the biliary tree, causing biliary colic, cholecystitis, cholangitis, pancreatitis, or intrahepatic abscesses. They can also travel up the esophagus, resulting in coughing and oral expulsion of the worm. Bowel symptoms from *Ascaris* infection can rival acute appendicitis and gallstones, with presentation as an acute surgical abdomen.

Definitive diagnosis of infection by *Ascaris lumbricoides* during the transpulmonary migratory phase is made via sputum culture, which will be positive for larvae. Following the pulmonary phase, mamillated *Ascaris* eggs can be identified in the patient's stool. Patients can also pass an adult worm through the stool, mouth or nose. Computerized tomography of the abdomen with contrast can assist the clinician in identifying adult worms. Plain abdominal films can also detect worm masses in gas-filled bowel loops if a patient presents with intestinal obstruction. Nematodes in the pancreatic or biliary tree can be visualized by ultrasound or cholangiopancreatography. The latter allows the clinician to extract any specimens which may be visualized in the ductal system.

Treatment

The medications most commonly used for infection by *Ascaris lumbricoides* are mebendazole and piperazine.

Mebendazole is a benzimidazole derivative which binds beta-tubulin, thus disrupting microtubule formation and glucose uptake. Due to the teratogenic effects of this agent, mebendazole is contraindicated in pregnant women. It is also contraindicated in heavy infestations, as it may provoke ectopic migration.

Piperazine is an inexpensive agent which is often used in third world nations to treat helminthic infections. It is an anticholinergic agent which paralyzes the nematodes, which are then flushed out by peristalsis. Piperazine has not been shown to have teratogenic effects, so it is safe for use during pregnancy.

Two alternative treatments are available if mebendazole or piperazine cannot be used. Pyrantel pamoate is safe for use in pregnancy. However, it has a mechanism of action which is antagonistic to piperazine, so these two agents should not be administered together. Albendazole is another alternative medication.

For patients who have partial gastrointestinal obstruction, nasogastric suction and intravenous fluids should be administered. Piperazine can be delivered via nasogastric tube. If a complete intestinal obstruction is present, surgical intervention (laparotomy, common duct exploration and biliary drainage) is necessary.

Discussion

There are numerous factors which should be investigated before a clinician can entertain the possibility of helminthic infection by *Ascaris lumbricoides*. The patient's geographic history is a primary factor. People from tropical areas, or those who have traveled to parts of the globe where sanitation is poor, are at an increased risk of helminthic infection. Those who have worked in the soil, or waded or swum in fresh water that is contaminated by fecal waste are also at risk. A patient's dietary history may reveal consumption of vegetable grown in soil that has been contaminated with human feces. This can explain some cases of infection outside of an endemic area.

Any patient with eosinophilia who possesses any of the above risk factors should be evaluated with stool examination to investigate possible helminthic infection. The extent of eosinophilia correlates with the extent of tissue invasion by helminths. Marked eosinophilia (more than 300 eosinophils per microliter) in a person infected with *Ascaris lumbricoides* indicates

that the larvae are in the transpulmonary migratory phase.

Hepatobiliary infestation of the biliary tract by adult helminths or their ova can result in a chronic, recurrent pyogenic cholangitis, with associated hepatic abscess, ductal stones, or biliary obstruction. This results from the intraductal migration of the adult *Ascaris lumbricoides* from the duodenum to the biliary tract. This type of infection is rare in the United States, but does occur in Southeast Asia with some frequency.

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The Physician-Patient Intervention: Therapeutic Dynamics in Clinical Encounters

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Introduction

The emerging paradigm of “Integrated Primary Care” reflects growing recognition in the health care industry of the need for intimate collaboration between medical and mental health professionals.¹ This fast-rising trend is further evidenced by the abundance of educational materials that urgently encourage physicians to develop effective patient communication and counseling skills.^{2,3,4,5} Reasons for this evolving phenomenon are both numerous and varied. Much data has accumulated demonstrating that a significant number of patients present to physicians with complaints that tend to be considered “psychosocial” in nature. Additionally, when patients receive a diagnosis that may be fundamentally physical, many experience concurrent psychological distress.⁴ In essence, and for various reasons, there seems to be increased consensus among practitioners that the Western tendency to categorize human experience into separate entities such as “physical” and “mental” has not turned out to be useful in terms of the understanding or alleviation of human suffering.¹

It is becoming increasingly difficult to deny a clear and substantial overlap between physical and emotional dimensions of human experience. Even the most skeptical clinician who only wants to treat “medical” problems may reluctantly work to improve his or her patient relations for fear of poor treatment adherence and outcomes, as well as potential malpractice litigation—all of which have been linked through research.³ Greater numbers of medical schools offer training in communication and the management of psychosocial concerns. As studies reveal, however, despite efforts to increase competency in this area, few practitioners actually feel prepared to draw upon their patient relationship skills. They feel unqualified to perform functions that seem psychotherapeutic in nature.^{1,4} In short, physicians tend to fear that by addressing patient emotions, they might

be opening a “Pandora’s Box.”

Further igniting this situation is the nature of physician education. Physicians are taught, formally or informally, to maintain a “professional distance.” How else can one deal with the profound issues of life and death on a daily basis? Furthermore, programs designed to teach doctor-patient communication tend to place heavy emphasis on skill acquisition. Theoretical frameworks created to define the physician-patient encounter are typically task-oriented, dividing the medical interview into mechanistic, linear stages. Examples include steps such as greeting the patient, collecting information, providing patient education, and bringing the session to a close.³ The importance of skills acquisition training cannot be underestimated, as this method has been shown to be useful.³ However, the approach is potentially limited in its ability to capture the true essence and scope of the doctor-patient encounter, as it provides little insight with regard to the depth and complexity of this unique social interaction. As a result, physicians are often left struggling to find their own comfort levels. It is easy in this situation to become confused about the boundaries of one’s role, creating an even greater need to maintain professional distance. Clearly, some type of alternative theoretical framework is needed to help physicians fulfill their best intentions.

This article is written from the perspective that it is not truly possible to separate the physical and emotional aspects of a human being for the sake of providing medical care. The very *act* of seeking help is a behavior, and behavior is part of the psychological realm. At the very least, it involves a patient’s drives, emotions, and perceptions. For every illness, there is a person experiencing that illness. For every ailment, there is an individual having thoughts and feelings about his or her state. For every disease, there is a human being attributing

meanings to his or her condition. This is true regardless of the nature or origin of the illness. Attempting to separate these psychological aspects from the clinical encounter may not only be futile, but can actually be harmful in some circumstances. For instance, one could unintentionally create emotional stress that can negatively impact the patient's healing capacities.

Drawing upon psychoanalytic principles, Gestalt psychology, systems theory, and crisis intervention models, this article provides the physician with a possible way to conceptualize the psychological aspects inherent in his or her clinical encounters. A generic model or framework to help the clinician understand the patients' experience around medical attention-seeking can be a useful aid when interacting with patients, as it can help physicians better appreciate what the patient truly hopes to gain via the clinical encounter. While the physician-patient encounter is not intended to be psychotherapy, with increased attention to the patient's concurrent psychological dynamics, such as those described below, this

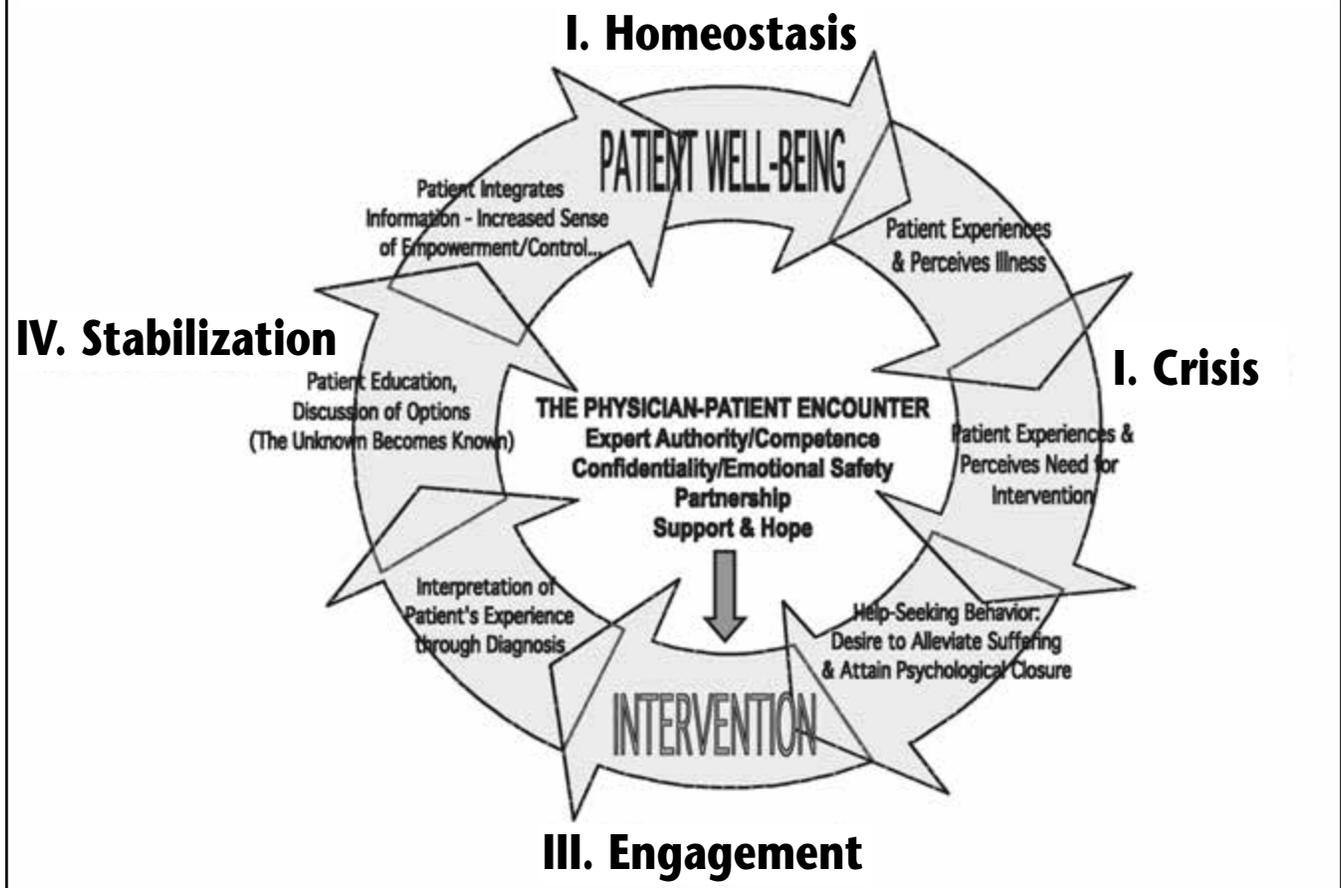
interaction can be experienced by the patient as supportive, respectful, and even therapeutic.

The Archetypal Patient Journey

The journey on which the patient embarks when illness strikes is a fairly universal experience that can be roughly likened to the archetypal "hero's journey." The hero, or in this case the patient, is reluctantly called to depart from normal life, encounters obstacles such as feeling like one is "trapped in the belly of the whale," receives supernatural aid (or in this case the aid of the physician), and eventually returns home, preferably wiser for the experience.⁶ As such, to better assist clinicians in understanding their psychological impact, the current framework is presented as a cycle divided into four main areas of common patient experience. These include (1) Homeostasis, (2) Crisis, (3) Engagement, and (4) Stabilization. The physician-patient encounter is characterized as an intervention in the patient's cycle of health and illness. Each of the four stages is further subdivided. It should be noted that these stages are not dis-

Table 1

The Physician-Patient Intervention: A Conceptual Framework



creet; for instance, it is certainly possible for a patient to experience a crisis after engaging the medical system and finding out that there is a serious concern. In these instances, additional or alternative types of interventions may be necessary. The remainder of the article will explore this cycle in more depth, and discuss implications for the physician.

I Homeostasis: Patient Well-being

In general, people strive to maintain a state of equilibrium.⁷ While in this state, human beings tend to experience a sense of well-being due to the high degree of perceived control. With regard to issues of health, some individuals are so highly motivated to maintain this state that they will seek medical attention just for the sake of preserving their wellness. When this state of balance is disrupted, individuals will go to great lengths to regain their stability.

Patient Experience of Perceived Illness

Illness is a fairly universal disturbance to any person's equilibrium. However, an important distinction must be made. A patient may actually experience illness long before becoming consciously aware of it. An example might be a woman who unknowingly has ovarian cancer for several years while "feeling fine." She is experiencing the illness on a physical level, but does not yet perceive it psychologically. Furthermore, a patient may begin to develop a vague sense that something is not quite right, but attempt to deny this awareness in order to maintain perceived control. The patient might make excuses, for instance, such as "I'm sure it's nothing," or "it will pass." In fact, some patients will go into extreme denial to convince themselves that no problem exists. This can create a breeding ground for more serious medical conditions.

II Crisis: A Matter of Perception

As physical symptoms become apparent and undeniable, the patient will eventually have to concede that there is "something wrong." Different individuals have different levels of bodily awareness and tolerance. For some, becoming conscious of the illness might take the form of an ache or a general sense of malaise. For others, conscious acceptance may not arise until the person experiences acute discomfort. However, even this may not bring the patient to the doctor. For one thing, the ailment could be minor and medical attention not necessary. In other cases, the patient may be afraid of going to the doctor and may opt to put this off as long as possible.

Patient Experience and Perceived Need

As suggested above, help-seeking behavior will not always occur when a patient experiences or even perceives his or her illness. It is not until things have crossed the threshold to upset the flow of life that the patient experiences the need for intervention. The patient facilitates the medical encounter when she or he no longer perceives him or herself to be in control, as this creates a "crisis." A crisis is said to occur when the demands of one's current situation exceed his or her coping abilities.⁸ Help-seeking behavior is often the result. With regard to the medical encounter, the degree of illness and/or pain, the amount of disruption to one's life, and attributed meanings all contribute to the acuteness of the patients' crisis experience and, hence, the urgency with which medical attention is sought.

Help-seeking Behavior: Desire to Alleviate Suffering and Attain Psychological Closure

While in a state of crisis, the patient is highly motivated to return to life prior to impairment. The alleviation of physical suffering caused by the illness, however, is merely one of the patient's goals, though certainly it is a major one. An important additional patient goal is to find relief from the psychological dissonance created by the lack of closure.

Due to the extreme discomfort that can be created by the experience of need, the desire to return to a state of homeostasis can be an overpowering emotional drive. Experiences of incompleteness, such as illness, can consume a person's thoughts, emotions and energies, further impairing his or her ability to live effectively.⁹ For the purpose of maximizing the benefits of the physician-patient intervention, it is important to realize that the achievement of both physical wellness and psychological closure are paramount for the patient. A prime example of this psychological need as a concurrent driving force can be seen in the hypochondriac. This patient is physically fine, yet is unable to achieve psychological closure in spite of reassurance from experts. As a result, help-seeking behavior ensues.

The idea that patients come to see physicians with such psychological motivations provides tremendous opportunities. If the physician can perform an intervention that helps to alleviate both physical and psychological suffering—one that aids the patient in returning to a state of not needing, of completion, wholeness, and balance, this is a significant part to play in a person's life. If the patient is psychologically satisfied and can obtain a

degree of closure, even if the news is bad, the physician-patient relationship can be solidified. On the other hand, if the physician is insensitive during the encounter, even if the physical problem is fixed, the patient may perceive a need to obtain closure with regard to the unpleasant encounter. At times, this may result in the unfortunate situation of a lawsuit.

III Engagement: The Physician-Patient Intervention

The point at which the patient's help-seeking behavior leads to engagement of the health care system provides the physician with his/her window of opportunity. The physician brings many things to this clinical encounter, all of which can be utilized as leverage for maximizing therapeutic outcomes. Each of these elements involves the appropriate and effective use of the physician's power. They are discussed briefly below.

Expert Authority and Competence

The famous Milgram (1963) study in which figures in white coats successfully commanded subjects to deliver potentially lethal electrical shocks to protesting individuals speaks to the tremendous social power of authority figures such as the physician.¹⁰ What this means is that in spite of today's emphasis on making patients partners in their own healing process, there is no getting around the fact that the physician-patient relationship is inherently asymmetrical. One individual wears a distinguished coat, holds an influential title, understands and has access to a large body of scientific information, and is automatically attributed with qualities such as strength, wisdom, and omnipotence. The other individual is in a state of need and relative vulnerability. He or she must enter the relationship from a one-down, or helpless, position, in which she or he is at times dependent for survival.¹¹

This dynamic, in which one individual is relatively powerless in relation to another, mimics another very potent and universal relationship in human experience—that of parent and child. An example of this parallel can be seen in the very act of seeking medical attention in which one individual who cannot care for him or herself comes to another in an attempt to extract what is needed. This is similar to a young child who cannot get his or her own food and must ask for adult assistance. Furthermore, while in this state of relative dependency, the patient is likely to experience a type of psychological regression.¹¹ Depending on the patients' past experi-

ences with authority figures, both positive and negative emotions and behaviors may present themselves in the encounter with the physician. These can range from outrage and entitlement to over-compliance and people-pleasing efforts. If dependency is uncomfortable, feelings of resentment and anger can often lie alongside the need to be cared for and soothed. Other emotions may also be present as reaction to the illness itself, such as fear, anger, or depression. Like a child with a parent, the patient has an overriding desire for the physician to be attuned enough to understand the complexity of these emotions.

Because of the compromised state of the patient on both physical and psychological levels in combination with the great social power of the physician, the physician's responsibility is immense. Hence, it is essential that the physician be competent in his or her area of expertise. With today's informed patient, the physician's word alone may not suffice over time. A patient must be able to see results based on the physician's counsel. This, then, becomes congruent with the patient's perceptions of what a physician is supposed to do, and trust in the relationship is retroactively solidified.

Confidentiality and Emotional Safety

Recognizing the patients' potentially compromising position, Brody (1992) writes:

Among the various circles of human relationships, the physician-patient one occupies a contradictory position. Though it may be friendly, as a rule the patient does not regard his physician as a close and intimate friend; the relationship, from the patient's side at least, is largely an instrumental one, aimed at furthering and protecting his health. But it happens – unlike in most other instrumental relationships – that in order to secure the offered benefit, the patient is forced to disclose to his physician matters that he would ordinarily disclose only to his most intimate acquaintances. This unavoidably gives the physician a good deal of power over the patient and his relationships. (p. 125)¹²

If the patient is to be helped, he or she must inevitably give up a degree of personal power.¹² Because of the sensitive nature of this situation, there can be no doctor-patient relationship without an understanding of confidentiality. The patient must be able to trust. Without this sense of emotional safety, the patient cannot take the risk of revealing highly personal information—information that is most likely pertinent with regard to his or her medical condition, and, hence, needed for accurate

diagnosis and treatment planning.

Effective communication skills are paramount for the creation of this trusting environment. The physician must be able to utilize warmth, positive regard, a non-judgmental attitude, active listening, and empathy to communicate the overriding message that “you are safe with me.” If this is done effectively, can greatly the patient’s enhance perceptions of the interaction. Additionally, because these compassionate types of behaviors and attitudes all have the capacity to “soothe” a patient’s psyche, they tend to increase the credibility attributed to the physician.¹²

Partnership

A sense of control is a significant factor in one’s ability to achieve and maintain wellness.¹³ Without some degree of perceived control over one’s condition, regardless of whether or not the disease-state is curable, it is questionable whether or not the patient can actually achieve any sense of closure or balance. This is often the unfortunate plight of the chronic pain patient. Given the power differential, it is the task of the physician to empower the patient with regard to his or her condition to the greatest extent possible. Ironically, the physician can achieve this by utilizing his or her expert power to raise the patient to the level of partner.

Many experts speak to the need for patients to become partners in their own treatment planning, as this has been shown to improve therapeutic outcomes.^{5, 14} Furthermore, the act of treating patients as equals in spite of their dependency is an act of profound compassion and respect. It communicates an attitude to patients that they are capable of helping themselves. All of this implies, however, that the physician will take the time to put the patient on equal footing by thoroughly educating him/her, exploring all possible options, and counseling him/her in implementing the treatment as needed. The healing aspects of the patient education process will be discussed more fully below.

Support and Hope

If all of the elements described above are present in the encounter, the patient should experience a tremendous sense of support from the physician. Social support, especially in times of stress, can be a profoundly influential variable to patient health.¹⁴ Social isolation in times of stress has been linked to a variety of negative medical outcomes ranging from increased risk of mortality among cardiac and stroke patients to increased potential for clinical depression to adversely impacted pregnancies.¹⁵ With his or her social power, support from the physician is an especially potent force and is

vital for successful intervention.

When one combines the aspects of the physician-patient encounter that contribute to patient support, the patient has the greatest chance for experiencing hope. Support and hope together have tremendous potential to reduce psychological suffering; so much so that experiences of hopelessness and helplessness have been linked to suicidality.¹³ When the patient’s illness is relatively straightforward and easy to treat, the physician’s task in this regard may not be so great. However, at times the physician is faced with the difficult circumstance of the patient’s impending death. In this unfortunate instance, support and hope are even more critical in allowing the patient to face death with dignity and with the comforting knowledge that he or she is not alone. In this regard, the physician can aid the patient in coming to a healing sense of closure about his or her life.

IV Stabilization: Coming to Know the Unknown

The physician must lay the groundwork for effective intervention by harnessing the power of the dynamics listed above. If this is done successfully, patients can begin to experience one of the major things they seek from the physician-patient encounter—stabilization. In short, the physician can utilize expert authority, competence, confidentiality, an environment of emotional safety, a predisposition for partnership, the communication of support, and the instillation of hope to assist the patient in becoming more knowledgeable, more empowered, and hence, more stable.

Interpretation of the Patient’s Experience through Diagnosis

A major role of the physician is to interpret the patient’s symptoms on his or her behalf, as this is a function the patient cannot perform for his or herself. This is the essence of diagnosis. Again, this dynamic mimics that of parent and child.¹¹ For instance, an infant does not comprehend his or her experience of hunger. It simply feels an unpleasant sensation, cries out, and hopes that someone bigger will understand and know how to respond. Just as the child eventually learns through the responses of significant others how to understand and help him or herself, so it this true for the patient when the doctor makes a diagnosis. The physician, with his or her superior knowledge base, interprets the patient’s symptoms and responds by feeding this information back in a palatable and digestible capacity. In other words, the physician “makes sense” out of the patient’s experience. It is a form of translation. Hopefully, once

this has occurred, appropriate plans can be developed and implemented. When further evaluation is needed, the patient's state of crisis may persist. It is imperative in this instance for the physician to continue to provide partnership, support, and hope.

It should be noted that a potential added benefit of the diagnostic process is its therapeutic impact. The experience of being understood by someone in a helpful position allows one to experience a sense of containment. This serves to reduce feelings of being out of control. All of this further contributes to the patient's sense of being stabilized.

Patient Education/Discussion of Options (The Unknown Becomes Known)

The knowledge that one has choices, no matter how limited, can be empowering. Knowing what one is dealing with, even if this is an undesirable circumstance, is often preferable to remaining in a place of ambiguity, which can often feel like being isolated in the "belly of the whale."⁶ This is especially true in Western culture. Diagnosis, however, is only the first part. Following up with thorough patient education is a critical component of nurturing a patient back to a state of wellbeing.

Studies show that physicians don't tend to place emphasis on the education aspect of the patient visit.³ Patient non-adherence is often the result.⁵ While this may be important in terms of the patient understanding and accepting what they need to do, it raises additional concerns from the psychological perspective: without an opportunity to dialog with the physician regarding one's diagnosis and treatment, there is no opportunity for the patient to experience the related emotions of feeling like an empowered participant. This can impair the patient's ability to attain full closure and can lead to dissatisfaction with the physician, even if the patient begins to physically feel better. As suggested earlier, a diagnosis may evoke negative emotions or perhaps a state of crisis, which may warrant additional intervention. Furthermore, to maximize the potential for beneficial therapeutic outcomes, it is important for the patient to experience the empowerment of being treated as someone capable of helping him or herself.

The experience of being able to understand oneself better has enormous healing capacities. Because improved self-awareness to one's painful experiences tends to reduce psychological suffering, it is often a major goal of the psychotherapy process.¹⁶ As such, it can be useful

for physicians to take the time to help patients better understand their disease processes and necessary lifestyle changes. When a physician demonstrates this type of commitment, the patient will deeply value the relationship and, in all likelihood, will probably return to the physician in the future.

Patient Integration of Information

Integration of the information received from the physician is the last step on the journey back to homeostasis. It is an aspect of the process, however, that typically takes place once the physician-patient encounter is over. Additionally, it tends to occur over time, as the patient sits with and digests, the information gathered.

During this time, the patient further makes sense of out his/her experience and begins to wrestle with the implications. The patient may make realizations regarding what, if anything, the illness and treatment mean, and how they may further impact his/her life. It is important at this juncture for the physician to be available for questions that may arise so that the patient can "finish his or her business" to the greatest degree possible. By continuing to serve as a stabilizing resource, the physician can assist the patient in attaining closure and moving on with his or her life.⁹

Conclusion

The physician-patient relationship is one in which doctor and patient come together for the sake of fulfilling the mutual goal of patient healing. This is a profound task in which the physician must utilize all leverage at his or her disposal, including the doctor-patient relationship. This involves the recognition that an intervention in a patient's life with regard to a physical concern simultaneously serves as an intervention on mental and emotional levels.

It is extremely important for physicians to understand the psychological dynamics inherent in their patient encounters to increase the likelihood that their interventions render positive results. While they may serve as a starting point, the dynamics presented in this article are merely the tip of the iceberg and serve as only one way of conceptualizing this complex encounter. Even with today's realities of time constraints and managed care, the physician is in a unique and wonderful position to effect healing on many levels of human experience. Seeking out new knowledge regarding one's overall impact in the lives of one's patients will help physicians make the most out of this opportunity.

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Amiodarone—Induced Thyroid Dysfunction

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Amiodarone, a benzofuranic derivative containing 75 mg iodine per 200 mg tablet, is widely used in the treatment of cardiac arrhythmia.¹ The half life of amiodarone is at least 100 days; about 9 mg iodine is released daily during the metabolism of a 300 mg dose. Amiodarone effects the heart as well as being a potent inhibitor of Type I - 5' deiodinase.¹ It may also inhibit TSH secretion. The subject of this brief review is to focus on amiodarone-induced thyroid dysfunction.¹

Thyroid dysfunction produced by amiodarone is dependent on dietary iodine content.² Amiodarone-induced hyperthyroidism (AIT) occurs in about 3% of the patients in an iodine replete area³ whereas AIT occurs in 10% of the patients residing in an iodine deficient area.^{4; 4-a} In the U.S., amiodarone induced hypothyroidism is more common, occurring in up to 20% of patients.² These differences are attributed to increased ambient iodine intake in the United States population preceding the administration of the drug.

Thyrotropin (TSH) level increases in the early phase of the treatment (one to three months), then returns to normal or occasionally undetectable levels.² There is an increase in T4 and a decrease in T3 because of decreased peripheral deiodination. These changes are found in euthyroid subjects.

Hyperthyroidism is best confirmed by an elevation of serum T3 and free T3 concentration as well as SHBG (sex hormone binding globulin) increase.⁷

It is important to differentiate the two types of AIT, since the management may differ.⁸ (See Table 1)

Table I
Differentiating features of amiodarone induced hyperthyroidism

	<u>Due to Iodine Excess</u> (Type 1)	<u>Thyroiditis</u> (Type 2)
History of thyroid disease	Often	No
Goiter	Nodular	Small or absent
FT4	↑	↑
FT3	↑	↑
TSH	↓	↓
IL-6	N or slightly ↑	↑ ↑
Thyroid RAIU	↓ N, or ↑	↓

FT4 = free thyroxine; FT3= free triiodothyronine; IL-6 = interleukin - 6
 N= normal; RAIU = radioactive iodine uptake.
 (with permission P.A. Singer, 25th Annual Symposium; Thyroid 2002)

Amiodarone induced hypothyroidism may be due to multiple factors. Iodine itself, released by amiodarone metabolism, may affect the thyroid gland causing an increase in iodine content in the gland.⁵ Amiodarone induced hypothyroidism may also be due to circulating thyroid antibodies.^{6; 4-a} Thyrotropin (TSH) becomes elevated and becomes easy to diagnose and treat (L-thyroxine) without the interruption of amiodarone therapy.

The pathogenesis of amiodarone induced thyrotoxicosis (AIT) is poorly understood. It is agreed that there exists two forms of AIT: Type 1 and Type 2. Type 1 AIT results from iodine excess (iodine—induced thyrotoxicosis) and type 2 AIT, according to Singer, is a direct inflammatory response or thyroiditis.⁸

In Type 1 AIT, there is an underlying thyroid abnormality (goiter or latent autoimmune disorder), then the iodine load triggers autonomous thyroid hormone production.² In type 1 AIT, there is a low (rarely normal or elevated) thyroidal radioiodine uptake (RAIU). The serum Interleukin-6 (IL-6) is normal or minimally elevated (compared to marked elevation in Type 2 AIT). Thionamide⁵ are of some benefit in Type 1 AIT; however, potassium perchlorate is probably more effective.⁸ Potassium perchlorate prevents thyroid iodine uptake and enhances the release of inorganic iodide from the thyroid.

In type 2 AIT, there is a direct inflammatory (destructive) response or thyroiditis⁸, no underlying thyroid abnormality, RAIU is low and the serum IL-6 is markedly elevated. There is a poorer response with thionamides and perchlorate.¹ The use of pharmacological doses of glucocorticosteroids, such as prednisone 40 mg per day is more beneficial.⁸ Although, if the diagnosis is in question, a combination of both prednisone and thionamide may be indicated. Thyroidectomy is sometimes indicated, if hyperthyroidism is difficult to control.⁸

It has been customary to discontinue amiodarone when the diagnosis of AIT has been made. However, in a retrospective study done by Osman, Franklyn², et al, the authors raised a question about the continuation of amiodarone when the diagnosis of AIT is made.² In 28 consecutive cases, comparisons were made between those in whom amiodarone was continued or stopped and between those with either possible Type 1 or Type 2 AIT.² The authors concluded that continuing amiodarone had no adverse influence on the response to

treatment of AIT.² First line therapy with thionamide alone was found to be appropriate in iodine repleted areas, therefore avoiding potential complications of other drugs.² Differentiating between the two types of AIT does not influence management or outcome.²

Osman's findings are in conflict with the only reported prospective study of AIT treatment, which compared 24 patients treated in Italy.^{2,9} In that study, Bartalena concluded that distinction of AIT is essential for management and suggested that Type 1 be treated with both methimazole and perchlorate and Type 2 be treated with glucocorticoids.² This discrepancy may reflect differences in iodine intake in the two areas of study with the United Kingdom being an iodine-replete area in contrast to Italy.²

In conclusion, the management of AIT continues to remain a clinical challenge which occurs in a group of patients that have underlying cardiovascular abnormalities.² Further investigation is imperative. The discontinuation of amiodarone is still an acceptable standard, however, as mentioned earlier, this may be controversial. Each patient should be treated based on his or her clinical presentation and diagnostic test results.

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Futile Care

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The purpose of this paper is to define *futile care*, go on to examples and, lastly, to provide possible guidelines for approach to the patient that can no longer benefit from current medical treatment or the current hospital stay.

Any clinical circumstances in which the physician and the physician's consultants, consistent with the available medical literature, conclude that future treatment (except comfort care) cannot, within a reasonable possibility cure, ameliorate, improve or restore a quality of life that would be satisfactory to the patient. Futile Care may be defined as: CMA/Los Angeles County Bar Association Joint Committee on Biomedical Ethics, the Spring of 1990's.

Situations in which futile care may occur:

1. An irreversible coma or a persistent vegetative state.
2. Terminally ill and the application of life-sustaining procedure would serve only to artificially delay the moment of death.
3. Permanent dependence on ICU care or artificial life support.

When the attending physician believes that further care other than comfort care is futile, but the patient or the patient's family insists on continuing extraordinary efforts, the following guidelines might apply.

The attending physician should take enough time to explain carefully to the competent patient and/or to the patient's family or valid surrogates the nature of the ailment, the options and the prognosis. The physician should explain that abandoning attempts at curative treatment does not mean abandoning the patient in terms of comfort, dignity and psychological support.

The attending physician should provide the names of appropriate consultants to provide an independent opinion concerning the futility of the situation (possibly the intensivist).

The assistance of the nurses, chaplain, patient care representative and social services is of utmost importance to be offered to the patient and family. A joint conference with the attending physician is desirable.

At the attending physician's request, the Bioethics Committee should be called to consider the matter and offer advice and counsel to the physician and/or family.

Adequate time should be given for the patient and the family to consider the information at hand and plan for the ultimate/terminal time.

If all of the steps are taken and the family remains unconvinced, neither the doctor nor the hospital are required to provide care that is not medically indicated, and the family may be offered a substitute physician (or a list of potential physicians) and an alternate hospital, if available.

If the patient can no longer benefit from an acute hospital stay and the patient or the family insists on treatment and/or staying, the mechanism for personal payment can be invoked.

In summary, in these tumultuous times for medicine, many of these end-of-life issues are imposed upon the attending physician. Hopefully, this article might ease that most strenuous time in a physician's life in determining the best for their acute or long-standing patient for their benefit and the benefit of the family and community. Patients look to physicians for advice. If the physician does not assume yoke of responsibility alternate legal/legislative acts will be invoked against .

It is a pleasure to address our fraternal organization and fellow clinicians and we are in hopes that this information will be useful to your individual practices and the beautiful job that God has give us.

Spurious Thrombocytopenia

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Spurious thrombocytopenia (Pseudothrombocytopenia) is a falsely low platelet count resulting from a laboratory artifact. This may lead to erroneous diagnosis, unnecessary and costly additional laboratory examinations including bone marrow biopsy, and the inappropriate medical or surgical therapy.

These patients' platelets are normal in number and function, but modern CBC counter machines can falsely report thrombocytopenia. The patients with spurious thrombocytopenia have been inappropriately treated with platelet transfusions, adrenocorticosteroids, and some have undergone unnecessary splenectomy for an erroneous diagnosis of idiopathic thrombocytopenic purpura (ITP) that is unresponsive to corticosteroid therapy.¹

I would like to discuss several cases that I have encountered recently in my medical practice.

Case Reports

CASE 1

A 51-year-old caucasian man was hospitalized through the emergency room with left back pain, acute gross hematuria and thrombocytopenia.

CBC on admission showed WBC 11.9 k/ul, RBC 4.77 mill/ul, Hemoglobin 16.1 g/dl, Hematocrit 45.3%, MCV 95 fl, RDW 11.8%, Platelets 15 k/ul and MPV 12.7 fl. Chemistry tests were not remarkable except for a cholesterol level at 265 mg/dl. Urinalysis revealed more than 30 RBCs/HPF and 2-5 WBCs/HPF.

Because of evidence of acute hematuria and very low platelet counts, he was given 10 units of random donor platelet transfusion.

Immediately, hematology consultation was requested and impression of ITP (Idiopathic Thrombocytopenic

Purpura) was made. The patient's peripheral smear was reviewed. There were many clumped platelets. Another CBC was requested with a special order to draw the blood specimen using a blue top tube, not with the routinely used lavender top tube. This repeated platelet count was 208 k/ul. Bone marrow biopsy was cancelled and the patient was discharged. The patient reported the next day that he had passed a urinary stone.

CASE 2

A 73-year-old caucasian woman suffering from chronic rheumatoid arthritis was referred for hematology consultation. Her CBC showed WBC 4.8 k/ul, RBC 3.36 mill/ul, Hemoglobin 11.3 g/dl, Hematocrit 31%, MCV 93 fl, Platelets 32 k/ul, RDW 15%, and MPV 9.4 fl. She was taking oral Methotrexate for the treatment of her rheumatism. Initial impression was either bone marrow suppression by Methotrexate chemotherapy or Immune Thrombocytopenia. Office microscopic examination of her peripheral blood smear revealed many platelet clumps. Next day, she had CBC done with a blue top tube, not using lavender top tube. This time her platelet count was 198 k/ul.

The patient was informed that she could resume Methotrexate chemotherapy.

CASE 3

A 37-year-old-African-American woman was scheduled to have elective hysterectomy for severe menometrorrhagia due to uterine fibroids. Preoperative CBC showed WBC 4.9 k/ul, RBC 4.33 mill/ul, Hemoglobin 10.3 g/dl, Hematocrit 33%, MCV 77 fl., Platelets 55 k/ul, RDW 13%, MPV 10.8 fl. The surgery was cancelled, and she was referred for a hematology consultation.

The blood smear examination revealed platelet clumpings. Repeated CBC with the blue top tube now reported her platelet count of 297 k/ul. She was allowed to have the operation.

Discussion

In vitro clumping of platelets is an important cause of thrombocytopenia. The modern automatic CBC test machines count a platelet clump which is often made of 10-30 platelets as one platelet, and it is reported in the histogram.

It can be a result of platelet cold agglutinins³ or partial clotting of blood samples due to improper techniques of blood drawing, or inadequate amount of anticoagulant. However, the most frequent cause of spurious thrombocytopenia is platelet clumping induced by ethylenediaminetetraacetic acid (EDTA).^{1,2} EDTA is used to anticoagulate the blood for CBC, and is in the lavender top tube which is routinely used for CBC testing.

The mechanism of EDTA-induced platelet clumping appears to be a reaction of platelet-specific antibodies with platelet antigens modified by EDTA.

Spurious thrombocytopenia is confirmed by examination of a stained peripheral blood smear. There are two methods to accurately count the platelets in the case of

EDTA induced clumping of platelets. One way is to collect a finger-stick blood specimen and to count the platelets by phase microscopy. The second and more convenient method involves collection of blood samples using sodium citrate or heparin instead of EDTA. Sodium citrate solution is in the blue top tube which is used for blood drawing for coagulation tests such as prothrombin time (PT). Heparin solution is in the green top tube.

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Misunderstood: Melatonin, the circadian rhythm modulator

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A few years back melatonin hit the popular press as a miracle drug to be used for everything from sleep and immune enhancement to birth control. In the process all this publicity obscured its real value and almost took it away from those patients who have benefited the most from it these past 5-10 years. Before I discuss those situations where melatonin can help, let me give you a quick rundown on what it is and how it works.

Melatonin is produced by the pineal gland in the brain and it was years before its function as a circadian rhythm modulator was discovered. Its secretion is dependent upon stimulation of the pineal gland by the suprachiasmatic nucleus (SCN) in the brain which in turn is stimulated by light falling upon the retina from which nerve fibers link up with the SCN. This connection of light and melatonin helps our bodies maintain close to a 24-hour cycle for various physiological functions. Without it and several other zeitgebers (time givers) such as social interaction, physical activity, etc., our body clock could go on into a free-running cycle and cause various health problems. Some blind people have this problem through a week-long, re-occurring cycle. They suffer periods of insomnia and hypersomnia, due to the lack of light input on the retina and SCN. One of the main ways that melatonin influences the circadian rhythm is through regulation of the temperature cycle. While the body tries to maintain a largely fairly constant temperature, it does vary through out the day by a few degrees. Nature has incorporated this cycle into our wake/sleep rhythm. We tend to fall asleep on the descending limb of our temperature cycle and awaken on the rising limb of the cycle. The onset of melatonin in the evening precedes and helps bring on this temperature drop and the offset of melatonin's production in the morning helps the body's temperature to start to rise and prepare it for a new day.

The effect of melatonin on our daily rhythms is mediated by light. Exposure to light stops the production of melatonin and its absence allows melatonin to reappear. While it was normally thought that only really bright light such as the sun's (10,000 lux at daybreak or 100,000 lux at noon) falling on the eyes/retina, or special light boxes (2500 lux) placed within 36 inches of the face had an effect on circadian rhythm, it is now recognized that even ambient light indoors (50-200 lux) can cause subtle shifts in the body clock.

Now that I've given you some background information, it's time to discuss some common disorder of circadian rhythm and how melatonin can help with their treatment. Jet lag, Sunday night insomnia, early morning insomnia, advanced sleep phase and delayed sleep phase syndromes are the main ones that come to mind. Let me first say a word about each disorder's main features before going into the treatment for each.

Jet lag occurs when one travels across many times zones in just a few hours time. It can take up to one regular day for each hour of time zone change before one is adapted to the new time zone. Thus if one goes from California to Ireland, there are about eight hours' difference in the time. It could take a person up to eight days to adapt to the local time.

Prior to a trip, if one takes a small dose of melatonin (0.3-0.5 mg) at the equivalent of 9p.m. of your destination (1p.m. West Coast time if on is going to Ireland) and then on arrival continues taking it at 9p.m. for a few days, along with a short-acting hypnotic such as Ambien, adaptation will take only a few days. Ideally one should take the melatonin for 4-8 days prior to the trip to get the best results. On the East Coast one only has few hours difference and needs to use the melatonin

for only a few nights prior to travel. Additionally one should rise and get light exposure in the early a.m. as soon as possible on arrival at your new destination in order to stop the endogenous production of melatonin by the pineal.

Sunday night insomnia is also known as jet lag with out flying. Since it is easier to extend our clock a few hours than to shorten it, staying up late on Friday and Saturday till 12 or 1a.m. can reset our body's clock for a new later bedtime. Then when trying to go to bed on Sunday at a usual 9 or 10p.m., one finds it to be very restless until 12 or 1a.m. It may take 3 or 4 nights to readapt the body clock to that earlier bedtime and then here comes the weekend again.

The best thing for this problem is to keep more regular bedtimes and wake up times to avoid this problem. In any case though, using melatonin (0.3-0.5mg) at 9p.m. on Friday, Saturday and Sunday can help keep the body's clock from resetting itself to those later bed times.

Early morning insomnia happens when people go to bed at their usual time of 11p.m. or 12a.m. and then awoken at 4 or 5 a.m. and can't go back to sleep. They stay in bed until 6 or 7 a.m. but don't feel as rested as they should. Although emotional issues can also play a part in this disorder, circadian rhythm can play a large part.

When the melatonin onset was measured in groups of normals and those with early morning insomnia, it was found that the normals and those with early morning insomnia, it was found that the normals went to bed closer to their melatonin onset in the evening than those with the early morning insomnia. The offset of melatonin in the insomniacs thus came at about 4 or 5a.m. when they were waking up. The normals offset was closer to 6 or 7a.m., when they were ready to get up.

Since going to bed earlier is rarely an option that these patients with a.m. insomnia will consider, there are two treatments that can be tried. One is bright light therapy in the evening to push back the onset of melatonin, or the easier method is to take a small dose of melatonin in the morning whenever the patient wakes up. This will in

effect pull back the melatonin onset from its earlier time and closer to the preferred bedtime of the patient. Correspondingly the offset of melatonin will be delayed the as well.

Advanced sleep phase syndrome is usually seen in the elderly, while delayed sleep phase syndrome is seen in teenagers by and large. The elderly will start going to bed earlier and earlier in the evening such as 6 or 7p.m. Then they will start waking up earlier in the morning than was usual for them (like 3 or 4a.m.) and can't go back to sleep. They've already slept for 7-8 hours and should be ready to get up. Their melatonin onset has begun early in the evening now, instead of at a more usual 9-10p.m.

Teenagers are so much busier now than in decades past that staying up late on school nights is common and being up even later on Friday and Saturday is normal as well. Sleep deprivation during the week, staying up late on weekends, and sleeping in on Saturday and Sunday mornings sets the stage for difficulty getting up in time on weekday mornings and being alert those first few periods of school. They will have problems getting up at 6 or 7a.m. because their circadian rhythm has changed to a later wake up times such as 9 or 10a.m.

While better sleep hygiene such as more regular bedtimes and wake up times along with adequate time spent sleeping would be the best for both these disorders, help can be had in shifting both advanced and delayed rhythms back to more optimal times.

For the elderly, staying up later will help, but using melatonin in small doses of 0.3-0.5mg at those early wake up times of 3-4a.m. will help to pull their regular melatonin onset times back to later and later in the evenings. Thus over a week's time or so, the 6-7p.m. bed time can adjust to 10-11p.m. and the wake up time can shift to 6-7a.m.

Of course what do they do then at night when they aren't used to staying up? Increased activity must be advocated. Other health issues such as depression and nocturnal arthritic pain need to be evaluated and treated as well.

Teens also will need to follow the above sleep hygiene

rules, but they will still find it difficult to go to bed earlier and get to sleep unless they have a very large sleep debt to go along with their sleep delay syndrome. Using melatonin about 2 hours before the desired bed time of, say, 10-11p.m. should rapidly be effective in adjusting their cycle. Of course, social issues, study habits and activities need to also be addressed for successful change in their circadian rhythm.

As the above information has revealed, melatonin can be very useful in certain conditions such as those listed. It is not the panacea that some would have you believe. It should not be recommended to a patient without taking a good sleep history and asking about other factors such as physical problems or emotional issues that may be causing the sleep complaint they seek help for.

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Problems and Challenges in Taking Care of Cancer Patients

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The words “You have cancer” can have a dramatic and devastating effect on anyone. This evokes a wide range of feelings of shock, denial, anger, guilt, shame anxiety, depression, confusion, uncertainty, doubt and fear. Sometimes the mind goes blank and the patient often thinks, “No, there must be some mistake.” Sometimes they feel “Why me?” This leads to feelings of helplessness, depression, fatigue and cripples them emotionally and physically. As the initial shock wears off, the majority of the patients are able to develop a sense of hope after they have spoken with a medical oncologist who helps them go through the illness. There is a definite relationship between mind and body and patients who acquire hope and a positive attitude towards their disease and life in general fare better and cope better with the disease. They tolerate the treatments better and the outcomes are successful because they have complied with the recommended treatment. The patient usually goes through some emotional ups and downs and the physician has to play a major role in the patient’s prognosis and final outcome while the patient is going through endless surgeries, radiation, chemotherapy, financial burdens, change in personal relationships.

The most difficult task of treating cancer patients starts with the problem and challenges of informing the patient of the diagnosis. This one of the most unpleasant and difficult tasks a physician faces in his practice. Empathizing with the patient is more important than trying to make the patient understand his or her disease and the prognosis. Physicians should understand that they are informing a patient of a life-threatening disease for which there is treatment available and that they are not the only one affected by this disease. Patients and their families need to be given a detailed explanation of the diagnosis, prognosis and treatment options informing them that treatment is available. There are going to be side effects but they are secondary. At this stage a hopeful and positive outlook supported by several success stories of modern day treatment with manageable

side effects should be established and the patient’s self esteem and confidence should be built. Statistics should be presented to the patient in a very tactful way because they cause unnecessary worry. Patients and their families hate to hear the words “death,” “advanced-stage disease,” and “poor prognosis,” among others. We should inform the patients that survival is the best indicator of cure and time alone will tell us whether the patient is cured of the disease or not. Taking care of cancer patients requires compassionate care and hours of time spent discussing with the patients and their families from all over the world by telephone, in person and in the hospital. Even one careless remark from the physician or the office staff can have devastating effect on the emotional well being of the patient. Often the patients say, “I don’t know if the oncologist is exaggerating the facts about the prognosis but my doctor makes me feel good. Every time I visit my cancer specialist, I come out with new hope.”

We can not attribute a dollar amount to the value of life. Cancer therapy is one specialty where economics should not impede proper management. In medical school we learned the science of medicine. However, it is up to the practicing physician to develop the art of love and caring that is needed for a patient and their family which contributes to the patient’s experience of physician empathy which has its own effects on healing. Treating patients affected with cancer is both a science and a healing art. We need to collaborate on a solution to preserve the service and compassionate care as more effective treatments are being developed for treatment of cancer patients. It is rightfully said that success is a journey and not a destination. Success in managing cancer patients is not where we stand today but in what direction we are moving. We must move and continue to strive to do the best for the cancer patients and to beyond what has been achieved or else we will stop growing.

Cancer Screening

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The goal of cancer screening is a very practical one: to detect cancer at an early stage when it is treatable and curable.

Appropriate cancer screening should lead to early detection of an asymptomatic or unrecognized disease by the application of acceptable inexpensive tests or examinations in a large number of persons. The main objective of cancer screening is to reduce the morbidity and mortality from a particular cancer among the persons screened. There are differences between screening tests and diagnostic tests. Screening tests are applied to an asymptomatic group, whereas diagnostic tests are applied to symptomatic individuals. The screening tests are also lower-cost, and yield a lower result per test and have lower adverse consequences of error. Diagnostic tests have a higher cost and higher probability of case detection. Also, failure to identify true positive can delay treatment and worsen the prognosis.

There are certain characteristics of cancers which make them suitable for screening. These cancers are usually associated with significant morbidity and mortality, they have a high prevalence in a detectable preclinical state, there is a possibility of effective and improved treatment because of early detection, and the availability of a good screening test with high sensitivity and specifically, low cost and little inconvenience and discomfort.

Breast Cancer Screening

The question, “at what age women should begin regular mammograms?” has been one of the most contentious in science and medicine. The American Cancer Society recommends that mammograms and complete clinical breast examinations be done yearly for women age 40 and older. Clinical breast examinations should be done every year for women between the age of 20-39. Monthly breast self-examination is recommended for all women age 20 and older.

Cervical Cancer Screening

Pap tests and pelvic examinations are recommended yearly for all women who are or have been sexually active or who have reached age 18. Every three consecutive normal pap tests, less often at the discretion of the physician.

Colorectal Cancer Screening

Fecal occult blood testing should be done yearly at age 50 and over. A sigmoidoscopy should be done every five years, colonoscopy every ten years, double contrast barium enema every five to ten years. Those with high risk for colorectal cancer should begin screening earlier and more frequently.

Prostate Cancer Screening

Men at age 50 and older with at least ten-year life expectancy should talk with their health-care professional about having a DRE and PSA blood test every year. Those with high risk for prostate cancer should consider beginning these tests at an earlier age.

Lung Cancer Screening

Lung cancer screening is currently not recommended due to lack of evidence that any available screening procedure even for smokers can identify tumors early enough to reduce mortality. Preventing initiation of smoking, especially by young people, and cessation of tobacco use are the main tools for combating this most common of all cancers. Following patients with chest X-rays and sputum cytology has not proven to be effective.

The Future of Screening

There are many challenges which lie ahead for cancer screening. Better detection methods are urgently needed and education of patients so that they adhere to cancer screening is also very important. One of the challenges we face is to evaluate new screening technologies in a world where large clinical trials are increasingly difficult to conduct. Evidence has to be balanced against the recommended screening tests in basing our decision to offer screening for cancer.

Transfusion-Transmitted Diseases

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The risk of transfusion-transmitted diseases, especially water transmission, has decreased dramatically over the last 25 years. More common than the water or fungal transmission is the bacterial contamination of blood products which is not usually considered a transfusion-transmitted disease. The use of screening questions was the earliest effective step taken to reduce the risk of transfusion-related hepatitis and HIV. In several parts of the world that do not have access to screening tests, transfusion-associated HIV and hepatitis are still a problem.

What constitutes pre-transfusion testing? Pre-transfusion testing in the United States includes screening for syphilis, hepatitis B (hepatitis B surface antigen and anti-HBC), hepatitis C (anti-HCV), HIV (anti-HIV 1 and 2), HIV-1 p24 antigen and HTLV (anti-HTLV 1 and 2). SGOT and SGPT are no longer required by the American Association of Blood Banks. If the test results are positive then they are confirmed by supplemental testing.

The current risks for transfusion-related HIV range from 1:500,000 to 1:750,000 units transfused. In spite of all the testing used to detect HIV antibodies in donors, the window period in which HIV could be transmitted by an infected by HIV seronegative donor remained at approximately 25 days. With the introduction of screening for HIV-1 p24 antigen in 1997, the window of period has decreased to approximately 15 days. The implementation of HIV nucleotide testing will further decrease the window period to an estimated 10 days.

The routine vaccination of infants and young children with hepatitis B vaccine should also decrease the risk of transfusion-transmitted hepatitis B. Chronic carriers of hepatitis B (hepatitis B surface antigen positive, anti_HBC IgG positive, HBE antigen positive and negative, anti-HBE positive or negative) can transmit the disease through blood donation or by other blood-borne

exposures. The most infectious of all these are the carriers with measurable HBE antigen.

The chance of a healthcare worker contracting hepatitis B from a single contaminated needle stick is estimated to be between 2-40%. The chance of acquiring HIV from a single contaminated needle stick is less than 1%. These differences may be related in part to the higher number of viral particles present in the blood of carriers of hepatitis B. The rate of transmitting hepatitis C through needle stick is probably on the order of 5%. Still, healthcare workers must strictly adhere to universal precautions to protect themselves and their patients.

In the United States and Europe, genomic testing for HCV or any virus was implemented to detect seronegative with infectious units. Of the recipients of blood components from donors later found to be positive by anti-HCV screening, the majority of these recipients who became HCV seropositive developed chronic liver disease and these patients should therefore be offered counseling addressing the complications of hepatitis C as well as the risk to close contacts and family members. Nucleotide amplification will decrease the incidence of transfusion-related hepatitis C by narrowing the window period from 60-80 to 10-20 days. The significance of transmission of hepatitis C virus by blood transfusion is not clear. Methods used to inactivate infectious pathogens in platelets and red cells are not currently available but are under clinical development due to the low risk of viral infection by transfusion and the fact the most patients who receive plasma also receive cellular blood products because the effectiveness of virally inactivated plasma is low. Albumin immunoglobulin factor concentrates and other plasma derivatives are also virally attenuated by standard treatment protocols.

CMV and parvovirus B19 are common in the general donor population and pose a serious risk in immunocompromised and splenectomized patients. Between 40-60% of blood donors have been exposed to CMV

during their lifetime and usually develop antibodies directed against CMV. Only approximately 2% of CMV seropositive donors are actively infected in which case transfusion of the blood to an immunocompromised recipient could potentially result in a serious disease.

A number of other infectious diseases are also transmitted by blood transfusion—for example malaria, Shiga's disease, leishmaniasis, toxoplasmosis, parvovirus B19, and babesiosis. These infections are particularly of serious risk to immunocompromised patients. Many areas are endemic in babesiosis and infection of transmission of babesiosis blood by transfusion results in asympto-

matic infection. Physicians should recognize that babesiosis can cause febrile hemolytic transfusion disorders which is a fatal yet treatable disease. Transmission of *Borrelia burgdorferi* by transfusion is not yet documented. The risk of new variant of Creutzfeldt-Jakob disease is unknown. The fear of transmission of Creutzfeldt-Jakob disease has resulted in white blood cell reduction policy in the United Kingdom. In the United States, donors are now deferred indefinitely if they have spent six months or more in the United Kingdom from 1980 through 1996.

Risk of Transfusion Transmitted Disease

Organism	Estimated Risk per Unit Transfused in the U.S. per Transfusion	Pre-transfusion Testing
Hepatitis B Virus	1:65,000	Hepatitis B surface antigen, anti-HPC serum SGOT and SGPT
Hepatitis C Virus	1:100,000 to 1:500,000	Anti-HCV and nucleotide testing
Human Immunodeficiency Virus 1 and 2	1:500,000 to 1:750,000 to 1:1,000,000	Anti-HIV 1 and 2 p24 antigen and nucleotide testing
HTLV 1 and 2	1:650,000	Entire HTLV 1 and 2
CMV	1:10 to 1:20	Some Units are tested for anti- CMV antibody
Parvovirus B19	Unknown	None
Bacterial contamination	1:1,500 to 1:2, 500	None
Trypanamopalitum	Rare	Rapid plasma reagent
Plasma ehrlichia babesia	Rare	None
New variant of Creutzfeldt/Jakob disease	Theoretically possible	Deferred based on history

Advances in Immunosuppression Therapies In Transplantation

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Successful transplantation cannot occur without modification of the body's naturally protective immune system. This is accomplished by administration of a variety of drugs capable of suppressing our natural defense mechanisms and allowing tolerance of foreign tissue, which would normally be destroyed. A delicate immunosuppressive balance must be maintained indefinitely to prevent organ rejection and susceptibility to infection. Experience over the past 20 years with the use of various immunosuppressant regimens following transplantation has shown improved survival statistics in patients receiving combined drug therapy. Triple drug therapy using Cyclosporine, Azathioprine, and Prednisone has been the mainstay of treatment for prevention of rejection at most transplant centers. However, recent advances in new immunosuppressive therapies have decreased the morbidity of transplantation and increased survival.

1. Cyclosporine

Cyclosporine is an extract of the fungus *Tolypocladium inflatum* gams. The mechanism and action of cyclosporine is highly selective. The drug inhibits the interleukin-2 proliferation of activated T-cells. Cyclosporine also inhibits the generation of lymphokines including macrophage migration inhibitor factor, gamma interferon, and lymphocyte derived chemotactic factor. The drug is extensively metabolized by the cytochrome P-450 system and thus the co-administration of any drug, which may affect the cytochrome P-450 system, will increase or decrease the cyclosporine blood levels. The most frequent and clinically significant adverse effects of cyclosporine are nephrotoxicity, hyperkalemia, hypomagnesemia, headaches, tremors and hirsutism.

2. Tacrolimus:

Tacrolimus is classified as a macrolide and has demonstrated potent in vitro and in vivo immunosuppressive activity. It selectively inhibits cytokine secretion (interleukin-2,-3, and -4, and interferon-gamma) by T helper lymphocytes in response to different stimuli, as well as expression of IL-2 receptors on alloantigen stimulated T-cells. Recent trials have demonstrated that patients treated with Tacrolimus along with Azathioprine and Prednisone have a lower incidence of rejection as compared to cyclosporine based regimens. The most frequent adverse effects of Tacrolimus are similar to those of cyclosporine. Tacrolimus tends to cause more hyperglycemia, especially in diabetics.

3. Azathioprine

Immunosuppression using azathioprine is accomplished by depression of all bone marrow elements producing granulocytopenia and monocytopenia. It interferes with T-cell protein synthesis and thereby reduces the inflammatory response and process of organ rejection. The heart transplant patient's white blood cell count must be followed closely to monitor pancytopenia and over-immunosuppression.

4. Mycophenolate Mofetil (Cellcept)

Mycophenolate Mofetil in combination with cyclosporine and corticosteroids has recently been approved by the FDA for the prevention of acute rejection as well as a substitute for Azathioprine. Its mechanism of action is based on interference with purine synthesis resulting in selective inhibition of T- and B-lymphocyte

proliferation with minimal effects on other organ systems. It may also reduce the recruitment of leukocytes into sites of ongoing rejection and may be of clinical benefit in the prevention and treatment of chronic rejection. The association between prevention of rejection and/or toxicity and serum concentration of mycophenolic acid have not been demonstrated to date. However, data suggests that the incidence and severity of rejection episodes are lower in patients receiving greater than 200 mg of Mycophenolate Mofetil daily. The side effects attributable to Mycophenolate Mofetil treatment have been relatively mild in most studies, occurring more frequently with higher doses of this compound (greater than 3000mg/day), and this dosage of Mycophenolate Mofetil is seldom required. The most commonly reported adverse effects are leukopenia, opportunistic infection as well as slightly increased incidence of malignancies.

5. **Prednisone**

Prednisone is a synthetic corticosteroid which influences the immune system by causing lymphocytopenia, affecting T-cells greater than B-cells, and interfering with vascular adherence of neutrophils. Its use, which depresses the inflammatory response, causes reduction in destructive cell count, migration, and antigen reactivity. Although this drug is very effective in helping to prevent organ rejection, its use predisposes the transplant patient to greater susceptibility to viral and bacterial infections. Other adverse side effects include sodium and water retention, hypertension, glucose intolerance, osteoporosis, muscle weakness, duodenal ulcers, cataracts, and increased fatty tissue deposits.

6. *Antithymocyte Globulin (ATGAM)*

Antithymocyte Globulin is made by the inoculation of horses or rabbits with human thymic white blood cells resulting in antibody formation. The serum obtained from these animals, when administered to transplant patients, selectively depresses circulating T-cells. This depresses the primary cellular immune response of rejections with little effect on macrophage, neutrophil, or B-cell activity. In an effort to further enhance immunosuppres-

sion during the early postoperative period, we have supplemented the standard triple drug regimen with a 5- to 7-day course of rabbit antithymocyte globulin (ATG). With this regimen with a 5- to 7-day course of rabbit antithymocyte globulin (ATG). With this regimen we have observed a longer interval to the first episode of rejection and have not encountered a higher risk of cytomegalovirus infection or post-transplant lymphoproliferative disorder.

7. **Sirolimus**

Sirolimus (Rapamycin) is an antibiotic similar to Tacrolimus. It binds to the FKBP but unlike the Tacrolimus-FKBP complex, the Sirolimus - FKBP complex does not inhibit calcineurin and therefore has a kidney-sparing effect. It binds instead to the target of Sirolimus which interrupts the signaling pathway between cytokine receptors and cell cycling to cause cells to arrest at the G-1 to S transition in their cell cycle. In rat studies, Sirolimus inhibits the vascular response to injury caused by allograft rejection. This antiproliferative effect may prevent the effect of arterial intimal thickening associated with chronic rejection. Sirolimus is currently in clinical trials as maintenance immunosuppression to be used with Cyclosporine. Pre-clinical and phase I-II studies have been promising. Sirolimus may allow us to decrease the dose of Cyclosporine especially in patients with renal insufficiency.

8. **Monoclonal antibodies**

The murine monoclonal antibody against the CD3 antigen (OKT3) is the treatment of choice for severe rejection and has also been used as induction therapy in solid organ transplantation. It has occasional severe first effects due to rapid release of multiple cytokines secondary to T lymphocyte cell lysis. It is highly effective in arresting T-cell mediated rejection and to suppress allo-antibody responses which are T-cell dependent. Associated morbidity with OKT3 monoclonal antibody use (CMV infection and lymphoproliferative disease) and lack of studies to substantiate its value in induction therapy has limited its routine use.

Other monoclonal antibodies are in development and are directed against various components of the immune system, which include adhesion molecules, cytokine receptors, CD4 antigen, portions of the T-cell receptor, and other targets. Recent developments include the development of humanized monoclonal antibodies, which allow its use for long periods of time without inciting an antibody response against the monoclonal antibody. There have been recent clinical trials assessing monoclonal antibodies against interleukin-2 receptors (CD25). Dacliximab is such a humanized monoclonal antibody against the interleukin-2 receptor. Two randomized, double-blind, placebo-controlled trials using 1.0mg/kg intravenously within 24 hours pretransplant in renal transplantation followed every 14 days for a total of 5 doses was performed in Europe and in the United States. In the European Trial, Dacliximab was administered in combination with cyclosporine and corticosteroids, and azathioprine. One hundred twenty-six patients were randomized to Dacliximab versus 134 patients randomized to placebo. Biopsy-proven rejection at 6 months was 35% in the placebo group versus 22% in the Dacliximab group ($p=0.03$). Based on these clinical trials, Dacliximab has now been approved in the United States for induction therapy in renal transplant patients. Its use in heart transplantation has not yet been studied.

Another novel monoclonal antibody technique is the use of a chimeric antibody. Basiliximab is a chimeric interleukin-2 receptor monoclonal antibody with a murine variable region and human constant region. This chimeric antibody was studied in a randomized trial in renal transplant patients. Prophylaxis with Basiliximab was found to significantly reduce the incidence of acute rejection episodes in renal transplant patients. Its use in heart transplant recipients is being planned.

Immunosuppressive Regimen For Cardiac Transplantation At St. Vincent Medical Center

1. Azathioprine: 4 mg/kg IV infused in the O.R. prior to sternal incision.
2. Methylprednisolone: 1 gram IV intraoperatively prior to CPB followed by methylprednisolone 125 mg IV every 8 hours for the first 24 postoperative hours.
3. Antithymocyte Globulin (ATGAM): 15mg/kg/day in 250-500 cc NS or D5W IV infused intraoperatively and given daily for at least 5 days.
4. Cyclosporine: 3 mg/kg every 12 hours orally started on the 4th postoperative day if urine output is greater than 50cc/hour and if the serum creatinine is below 2mg/dl.
5. Prednisone: 20mg daily give orally in 2 divided doses.

The maintenance of the immunotherapy regimen is as follows:

1. Cyclosporine is administered every 12 hours and titrated to a whole blood through level of 300-400ng/ml (monoclonal antibody based fluorescent polarization immunoassay).
2. Renal function must be regularly monitored with consideration of decreasing the cyclosporine dosage for creatinine levels greater than 2.0.
3. Azathioprine or Cellcept in continued as tolerated at 2mg/kg/day to keep the WBC count between 4,000 and 7,000.
4. Following the completion of methylprednisolone, prednisone is begun at 20mg/day and decreased to the lowest possible level within one year following transplant.
5. Three months after heart transplantation, the cyclosporine does is reduced to maintain a trough level of 200-300 ng/ml if there is no evidence of rejection.
6. The patient's prednisone is tapered. If the patient develops signs or biopsy evidence of rejection, the taper is held until resolution of the rejection, and the cyclosporine dosage is increased by 30%.

Adverse Effects of Triple-Drug Immunosuppression

Cyclosporine	Corticosteroids	Azathioprine
Hypertension	Cataracts	Leukopenia
Renal dysfunction	Osteoporosis	Thrombocytopenia
-Hyperkalemia	Peptic ulcers	Macrocytic anemia
-Hypomagnesemia	Obesity	Pancreatitis
-Hyperuricemia	Cushingoid	Cholestatic Jaundice
Hepatic dysfunction	Labile emotions	Hepatitis
Seizures	Easy bruisability	Interstitial pneumonitis
Tremor	Diabetes exacerbation	
Paresthesia	Corticosteroid myopathy	
Anxiety	Insomnia	
Insomnia	Sodium retention	
Rhinorrhea	Hyperlipidemia	
Gingival hyperplasia	Avascular bone necrosis	
Hypertrichosis	Growth retardation in children	
Malignancy		
Hirsutism		

Cyclosporine Drug Interactions

Drugs that increase cyclosporine levels	Drugs that decrease cyclosporine levels
• Cimetidine	• Cholestyramine
• Ciprofloxacin	• Ethambutol
• Diltiazem	• Ethanol
• Erythromycin	• Isoniazid
• Ketoconazole	• Nafcillin
• Metoclopramide	• Ocerotide
• Nicardipine	• Phenobarbital
• Ranitidine	• Phenytoin
• Verpamil	• Rifampin
	• Sulfamethoxazole

Patient Choice and Informed Consent

Nabil Kouksi, M.D., MHA

The legal doctrine of informed consent requires that physicians explain to patients the choices available, the risks and benefits of any proposed treatment, and any alternatives. They must also obtain the patient's consent before performing any medical procedure or therapy. Under traditional fee-for-service practice, patients have a broad choice of providers, therapies, and procedures. Managed-care organizations structure the delivery of medical care to limit patients' choices and control. They restrict choices by implicitly excluding medical services through management decisions that limit the resources available to physicians (such as reducing budgets for equipment), by imposing rules and incentives that encourage physicians (such as reducing budgets for equipment), by imposing rules and incentives that encourage physicians to practice more frugally and thus not consider or recommend certain medical options, and by explicitly excluding certain medical services from the benefits package. (Rodwin MA. 1993).

Only the last mentioned method is obvious to patients. Implicit methods of restricting services—by resource management or rules and incentives—hide from patients their limited choices. Such practices compromise the values underlying informed consent because doctors and providers do not inform patients that their clinical choices are restricted. If managed-care from the beginning, consumers—in theory will be able to inform themselves about policy limits and choose among different managed-care plans. Such a choice, some people argue, preserves the values underlying informed consent. (Johnson J., Mitka M. 1994)

If managed-care organizations do not fully disclose their policies of limiting services, should physicians? Should physicians, as fiduciaries, also inform patients of medical options that managed-care organizations exclude? And should doctors inform patients of their own financial incentives to reduce services?

Malpractice law imposes liability on physicians for “failure to disclose” in obtaining consent. Courts have not yet made clear whether limitations on services in managed care need to be disclosed. But this will be a major issue in the future, especially if physicians who fail to disclose have financial incentives to reduce services. Physicians working in managed-care organizations are under pressure to pass over some options silently or to emphasize their risks and minimize their benefits. In some cases primary care physicians are prohibited from informing their patients that they are seeking a referral until they have received authorization. Thus, physicians may have difficulty reconciling their dual obligations: on the one hand, their fiduciary obligation to inform patients of clinical options and risks and allow them to choose from among them; on the other, to follow the organizational policies that limit patient choice. (Angell M. 1993) Public policy needs to preserve meaningful choice for patients. This will require that physicians disclose restrictions on choice at the point of service, but even more important it will require policies that minimize the physician's role as “double agent.” Disclosing organizational policies is not a panacea for the limitation of services in managed care, but it may reduce the risk of legal liability.

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Why are Our Patients Still in Pain? Finding a Balance in Treating Non-malignant Pain

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Why are our patients still in pain? It is reported that 50 million Americans have chronic pain that is categorized as disabling. An estimated \$150 billion per year is used for expenses related to the diagnosis and treatment, lost wages, and decreased productivity associated with chronic pain.¹ While pharmacological advances have introduced new combinations of narcotic analgesics over the past several years, many primary care physicians remain reluctant to prescribe medications with sufficient potency and dosing frequency to adequately treat non-malignant chronic pain in the ambulatory care setting. The factors that contribute to this reluctance are multifaceted.

Back to Basics

What is pain management? The American Academy of Pain Management defines pain management as “the systematic study of clinical and basic science and its application for the reduction of pain and suffering; the blending of tools, techniques and principles taken from the discrete healing art disciplines and reformulated as a holistic application for the reduction of pain and suffering; and a newly emerging discipline emphasizing an interdisciplinary approach with the goal of reduction of pain and suffering.”² It is essential to emphasize the goal of pain management in the context of non-malignant chronic pain. According to the above definition, the goal is not the elimination of pain, but rather the reduction of pain and resultant increased functioning.

Clinicians have a responsibility for patient education. At the onset of treatment, the patient should be educated and accept the goal of chronic pain treatment. Many patients incorrectly assume the goal of chronic pain therapy is to completely alleviate all pain symptoms. While this would be a very favorable result for both patients and physicians, it is often anatomically or physiologically impossible for many patients. The patient

should regard achieving a level of pain control that allows the patient to function in the activities of daily living, including employment, family and social activities, with minimal adverse drug side effects as a successful outcome. Understanding that a certain level of pain or discomfort may persist even with medication, patients may become more tolerant during the course of treatment and allow their bodies time to respond to treatment and the natural healing process.³

World Health Organization (WHO) Guidelines for Opioid Use

The World Health Organization has established protocol for the pharmacologic management of chronic pain. Initially, patients should be treated with non-narcotic medications, such as non-steroidal anti-inflammatory drugs (NSAID's), aspirin, acetaminophen. In addition, skeletal muscle relaxers, serotonin medications (SSRI's) and manipulative medicine should be used. When these agents fail to provide symptom relief, the physician should begin use of Drug Enforcement Agency (DEA) scheduled controlled substances, such as codeine or hydrocodone with acetaminophen, darvocet and narcotic agonists, i.e., Talwin®, Nubain® and Stadol®. As a final resort, stronger scheduled or controlled substances can be implemented, such as morphine sulfate, hydromorphone, fentanyl, levorphanol or methadone.³ Physicians in the following study were more comfortable prescribing codeine/acetaminophen combinations versus sustained-release morphine.⁵

To Treat or Not To Treat

Studies have shown that strong opioids have been beneficial in treating many patients with chronic non-malignant pain.⁴ However, there have been few detailed care guidelines established for practitioners. While primary care physicians may want to provide adequate treatment for the chronic pain patient, many fear prescribing nar-

cotic analgesics primarily because of the risk of drug dependence and increasing tolerance. The University of California, San Francisco/Stanford Collaborative Research network study conducted a survey of physicians. The physicians were surveyed using clinical vignettes and questions on their prescribing habits. In this study, chronic non-malignant pain was described as any pain condition persisting for over six months and not associated with malignancy or other terminal diagnosis. Of the 161 physician respondents, the majority were concerned with development of physical dependence. The greater concern for dependence correlated with a decreased tendency to prescribe opioids for the chronic pain patient. Other predictors of the physician's willingness to prescribe opioids were physicians who recently completed their medical school training, doctors who found satisfaction working with chronic pain patients, practitioners who did not fear reprimand from licensing boards and those physicians who had fewer total patients per month.⁴

Barriers to Care—Assessment and Expectations

In addition to clinician's fear of drug dependence & tolerance, many physicians find assessing the patient's pain a considerable challenge. A patient's report of pain is subjective and difficult to verify unless the patient presents in the office with a pain that is reproducible. Patient reporting may be deemed unreliable. The true intensity of pain may not be appreciated and, consequently, treatment may be inadequate.⁹

Most family physicians are capable of treating patients with chronic pain. Sufferers of chronic pain disorders, which are difficult to manage, as well as patients that are known to have a history of substance abuse or dependence, should be managed by those adequately trained in pain management and/or at pain management facilities.⁶ Most other chronic pain patients can be managed by osteopathic physicians. However, many choose an approach that may be too conservative, leaving patients with legitimate chronic pain without relief of symptoms. One may ask, who should decide what is "legitimate" chronic pain? Guidelines, charts and questionnaires have been used to assess quality, quantity, duration and location of pain. Legitimate chronic pain can be characterized as pain resulting from a known anatomical or physiological dysfunction.

Physician's expectations of a patient's level of pain may also contribute to how aggressively the patient is treated. For example, physicians expect extreme quantities of

pain post-trauma, such as surgical procedures, motor vehicle accidents and visceral pain syndromes such as that produced by hepatic capsule disease, biliary disease and gastrointestinal disorders. Acute pain is generally treated adequately because the physician has evidence that there is a "cause" for pain. However, after a certain window of time, a physician may make a determination that the pain the patient is experiencing should be resolved and many begin to adopt a more conservative approach to pain management. Is it the physician's ethical responsibility to gradually decrease the dose of medication for patients taking habit-forming medications regardless of resultant pain? Or is it the physician's duty to ensure pain relief and return of sufficient daily functioning?

Patients Take Action

Most physicians would agree that many patients will "take matters into their own hands" when they perceive that they are not receiving adequate care from their physicians. In addition, if pain is not adequately controlled in the elderly, families may pursue legal remedies for such. Recently, a family invoked the "Elder Abuse" law in the *Bergman vs. Eden Medical Center* for a \$1.5 million judgment. While physicians have a responsibility to encourage their patients toward personal responsibility for their condition, doctors do not want patients to seek harmful or illegal means toward pain relief. The undertreatment of patients by physicians may have provoked the Compassionate Use Act in the state of California. The Compassionate Use Act of 1996 was written "to ensure that seriously ill Californians have the right to obtain and use marijuana for medical purposes where that medical use is deemed appropriate and has been recommended by a physician who has determined that the person's health would benefit from the use of marijuana in treatment of cancer, anorexia, AIDS, chronic pain, spasticity, glaucoma, arthritis, migraine or any other illness for which marijuana provides relief." The act also states that "no physician shall be punished or denied any right or privilege for having recommended marijuana to a patient for medical purposes."⁷

Before prescribing narcotics, many physicians find it beneficial to enter into a written contract with the patient. The contract provides a point of reference should a patient begin to exhibit signs of drug misuse or abuse. In the contract, the patient should agree that he will only receive the medication from one physician, he will be given a prescription at designated time intervals only, he may not call in for refills and he will not be

given duplicate prescriptions should a prescription be lost.⁷ If it is discovered that the patient has violated any of the components of the contract, he will be immediately released from the physician's care and referred to a drug dependency program.

Patients that are abusing prescription narcotics often have similar characteristics. A new patient may present with a history of back pain or chronic headache. The patient may ask for a specific medication by name, stating it is the only drug that relieves the pain. The patient may appear nervous or agitated during the medical interview. This may be a sign of early drug withdrawal. The most commonly abused prescription narcotics are morphine, dilaudid, percocet and fiorinal.³

Chronic Pain - Prove It

For many years, chronic pain conditions such as fibromyalgia were considered psychological problems because there were no laboratory tests, radiographic or other tangible means to diagnose this chronic disorder. The osteopathic approach to this chronic pain patient includes analgesics, muscle relaxants, mood altering medications and the unique approach of hands-on manipulation of myofacial structures and osseous (bony) dysfunction as well as addressing the psychological component of the chronic pain. A patient with fibromyalgia may be a female 20-50 years of age who presents with diffuse pain, tenderness upon palpation of bony prominences, disruption in sleep, lack of physical exercise and complain of anxiety and/or depression. The patient may also complain of sensitivity to extremes in temperature, frequent episodes of gastrointestinal dysfunction, headaches and numbness or swelling of extremities. It is reported that more symptoms of depression were seen in patients with fibromyalgia versus a control group that suffered from chronic pain associated with rheumatoid arthritis and those who were asymptomatic.⁸

Many patients with fibromyalgia have complete physical and laboratory examinations that are negative for degenerative and/or rheumatologic disorders. On palpation, some patients may demonstrate a small increase in segmental mobility while others appear unchanged. Often, range of motion testing in the fibromyalgia patient is not decreased.⁸

Treatment for fibromyalgia patients is relief of symptoms. Tricyclic antidepressants are utilized as well as benzodiazepines, NSAIDs and corticosteroids. In addition

to the pharmacotherapeutic approach to fibromyalgia treatment, myofascial manipulation in conjunction with a stretching program frequently improves symptoms.⁸ Psychological counseling services should also be utilized if this aspect of the syndrome is present.

Conclusion

John Ashcroft, Office of the Attorney General, Washington, D.C., wrote in a personal correspondence to Louis J. Radnothy, D.O., President, ACOFP, in November, 2001: p1 (3).¹⁰ "I want the nation's doctors to know that (as matters relate to patients' comfort & relief they will have no reason to fear that prescription of controlled substances to control pain will lead to increased scrutiny by the DEA, even when high doses of painkilling drugs are necessary and even when dosages needed to control pain may increase the risk of death." As osteopathic physicians, we recognize that there is more to pain than merely anatomical and physiological dysfunction. Social, environmental and psychological factors contribute to the quality, quantity and duration of many chronic pain episodes. As holistic physicians, it is our duty to address all of these components as we attempt to alleviate chronic pain.

Most would agree that the cornerstone principle for an osteopathic physician is enveloped in one phrase, "Primum non nocere" First, do no harm. One must ask, are we doing the patient harm by allowing our patients to remain in chronic pain? Are we doing them harm by supporting a dependence on pain-relieving medication for normal functions of daily life? There is a delicate balance that each individual osteopathic physician must find in the context of their own practice of medicine.

Seven Steps for Helping Patients Cope with Chronic Pain

1. Re-establish a sense of value: Many patients suffering from non-malignant chronic pain are elderly or suffering disability due to chronic pain. It is important to help patients recognize their value to society in spite of their disability. Encourage a sense of importance that is not based on level of productivity, but on character qualities such as kindness, honesty and loyalty.
2. Encourage spirituality: In recent years multiple research studies have shown that patients that include prayer or meditation in their daily lives tend to have better recovery rates.

3. Encourage patients to take responsibility for their own outlook: While the cause of their chronic pain may not be their responsibility, the patient's outlook on their circumstance is. Encourage your patient to find new perspectives to their difficult situation.
4. Listen to your patients: Patients who express their fears, experiences and hopes may decrease the perception of pain symptoms.
5. Encourage support groups: Patients with common pain symptoms may benefit from each other's coping strategies.
6. Encourage a self-inventory: It has been demonstrated that people who harbor anger may be more likely to suffer from more physiological dysfunction. This may include aggravating chronic pain. Make amends in those relationships that have had problems.
7. Take one day at a time: Encourage your patient to recognize that recovery is a process that requires time. Setting realistic goals as well as celebrating small accomplishments will help your patients during the recovery process.

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