AMERICAN HEALTH CONSULTANTS®

DISEASE STATE MANAGEMENT™

Managing Chronic Illness Across the Continuum

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Evidence-based medicine: Research leads to better clinical pathways

Process requires a systematic review of literature

The theory is simple: If physicians can evaluate published literature and review clinical trials to form a body of clinical recommendations for patient care, outcomes will improve.

The reality is a little more complicated: Doctors, particularly primary care physicians, frequently feel overwhelmed by the enormous body of research and rapidly changing recommendations for care.

The solution, some say, is evidence-based medicine (EBM).

In short, EBM involves taking the latest scientific data and incorporating it into practice, as opposed to traditional medical care which often fails to incorporate new research in an efficient way, "like the way your grandfather practiced medicine the same way for 40 years," says **Jim Gaume**, MD, a Nashville, TN, endocrinologist in practice with three other physicians. "Well, this isn't your grandfather's world anymore."

For example, under the old ways of practice, physicians monitored blood sugars of diabetics — sometimes. With EBM, HbA1c levels are monitored quarterly along with a long list of other factors.

EBM isn't really new, but it's an idea whose time has come in disease management as physicians struggle to find tools to help them "translate evidence into practice, improving outcomes, and saving in human terms and in terms of medical costs," says **John McDonald**, RN, MS,

KEY POINTS

- Evidence-based medicine (EBM) brings the latest research into practice.
- Researchers say EBM empowers physicians currently overwhelmed by the enormous body of medical knowledge available to them.
- Groups of physicians can work together to develop a risk management system based on clinical evidence, allowing them to better track patients, and improve outcomes.

CPHG, administrator for the general medicine patient care center at Vanderbilt University Medical Center in Nashville, TN.

This is easier in an HMO setting with large resources to keep abreast of the latest developments, than in a rural practice, but it is possible in both, says Gaume.

Collaboration for better management

"EBM offers prompts and triggers and cues that are based on what we know makes a difference," Gaume says.

"Medicine now has more interest in prevention of complications of disease," adds McDonald.

Gaume, an enthusiastic supporter of EBM, found the resources to practice EBM through the Physicians Community Health Group (PCHG), a collaboration between St. Thomas Hospital in Nashville and 1,000 doctors in the surrounding area, 300 of them primary care physicians.

"All our members need is a fax machine and a flow sheet. They come to CME (continuing medical education) and they're up and running," Gaume adds.

An organization like PCHG, Gaume says, can sift through the "foot-high stack of disease management strategies offered by a variety of journals, drug companies, associations, and the CDC that comes every month," analyze it and decide what should be incorporated into practice.

PCHG offers simple solutions, like providing coaches who spend time in doctors' offices and make recommendations.

"Sometimes work flow in the office is a barrier to good care," Gaume says.

For example, nursing assistants in an office might be trained to have diabetic patients remove their shoes before the doctor enters the room. It's such a simple thing, he says, but it reminds doctors to check patients' feet each time.

Among the PCHG patient base are 5,000 diabetics spread over central Tennessee's 12 counties.

For example, when the American Diabetes Association added the daily use of aspirin to its guidelines for care of diabetics last year, PCHG members were alerted and encouraged to "get more aggressive with patients."

PCHG devised a flow sheet for diabetics available on the desks in local hospitals.

"It creates a matrix in patient charts and ensures we don't miss things we normally might forget," Gaume explains.

PCHG plans additional flow sheets for asthma and other diseases.

The form helps physicians track disease progress and complications early so they can "concentrate resources where they matter," Gaume says. "The recommendation for management intensity goes up as the patient's risk level goes up."

Gaume is quick to point out that EBM is not formula medicine or case management by computer. He sees it as an integration of scientific data and individual treatment plans based on the patient's needs.

Big resources

The resources are there at Kaiser-Permanente in California, where **Allen Bredt**, MD, FACP, a medical oncologist and assistant to the associate medical director for clinical services at the Southern California Permanente Medical Group in Panorama City, has been contributing to the giant HMO's EBM assessments for the past five years.

"Medical practice has become so complex," Bredt says. "It's beyond the human mind to read 100 articles and come up with a guideline on each disease."

Kaiser's practitioners participate in designing evidence-based policies and internally generate guidelines for its physicians.

Bredt looks at EBM as "basing decisions on evidence showing effectiveness and benefit, so when there is evidence of benefit, then the physicians should do it."

COMING IN FUTURE MONTHS

- The dos and don'ts of telemedicine and CHF
- Five effective strategies of reducing readmissions
- Using a formal program to assess asthma patients' needs
- Acid reflux, GERD can trigger asthma attacks
- New concepts about CHF are changing treatment

The tricky part, Bredt says, is where there is insufficient evidence to sway practice one way or another. In those cases, Bredt says, "A physician should be conservative and use discretion."

Kaiser's clinical guidelines are updated every two years.

He admits that over the 10 years Kaiser has been using EBM, it has sometimes been "difficult to implement the guidelines and compliance was frequently poor.

"With the help of Kaiser's computer system, outcomes are now monitored," Bredt says, and "we make targets to help doctors and care teams constantly improve outcomes."

Kaiser does not formulate all of its guidelines from scratch and often relies on guidelines published by professional associations like the American Heart Association and the American College of Cardiologists which are "adopted and adapted to our system," Bredt says.

Kaiser in Southern California spends about $500,000 a year to develop guidelines, but "that's not the entire cost by a long shot," Bredt says. "Evidence-based medicine permeates everything we do," he says. "It's really not possible to dissect it out from the entire range of disease management."

Can private practitioners do EBM?

For practitioners who are "out there" alone with no professional collaborators or HMO to turn to, EBM is still possible, Bredt says.

And no, he says, it is not necessary for a physician to burn the midnight oil reading stacks of journals to come up with the latest clinical data.

He recommends close contact with professional associations and private organizations that issue EBM guidelines, including:

- **U.S. Preventive Service Task Force;**
- **Agency for Health Care Policy and Research;**
- **American Society of Clinical Oncologists;**
- **American College of Physicians;**
- **American College of Pediatrics;**
- **Hayes Group;**
- **Cochran Collaboration;**
- **ECRI (Emergency Care Research Institute).**

"The health care industry is moving toward EBM because it is a bigger umbrella and includes preventive care," says McDonald. "Under the concept of EBM, once you're healthy, it'll keep you healthy and if you have a disease, it will get you as healthy as possible."

For more information, contact: Jim Gaume of PCHG at (615) 385-0546; John McDonald of Vanderbilt University Medical Center at (615) 343-7154; and Allen Bredt of Southern Permanente Medical Group at (626) 405-5766. ■

Y2K could flatline the health care industry

Tackle millennium bug while there's still time

The clock ticks past midnight. It's Jan. 1, 2000, seconds into the new millennium. Are biomedical devices refusing to function, swipe card doors steadfastly remaining locked, computers balking at requests for access to patient records?

No one knows for certain the answer to these questions, but feverish preparations are under way in some facilities to address the problem of computer-driven devices designed to accept date codes only by their last two digits.

The health care industry is woefully unprepared

KEY POINTS

- U.S. Senate report says health care industry preparations for year 2000 (Y2K) computer bug are inadequate.
- Areas of health care most vulnerable to the "millennium bug" are:
  — Computers for patient records, billing systems and electronic links between providers, wholesalers, and distributors and patients could fail.
  — Embedded microprocessors in biomedical devices and hospital, clinic, and medical office buildings that control heating, ventilation, security, and air conditioning. Power and water in research labs and manufacturing facilities could fail, possibly causing life-threatening problems, locking staff out of critical areas like pharmacies, labs, and operating rooms.
- Electronic interfaces between doctor offices and hospitals that could affect, for example, a patient's infusion pump connected to the hospital's information system.

What is the Y2K problem?

Many computers, including virtually all older generation computers, recognize the year by a two-digit number, i.e., "99" for 1999, etc. When the year 2000 (Y2K) arrives, many computers will not accept the "00" designation at all and others may read it as 1900. Y2K-compliant computers and computer-driven devices will show a full date as an eight-digit number, i.e. 01042000 rather than 010400. ■

to deal with the year 2000 bug commonly called Y2K, says a U.S. Senate special committee report.

"Y2K could put the health care industry in intensive care," according to Sen. Chris Dodd, vice-chairman of the U.S. Senate Special Committee on the Year 2000 Technology Problem.

The year 2000 date problem spreads across hospitals, clinics, laboratories, pharmacies, and doctor offices. While no one is exempt, experts say physician practices and clinics are particularly vulnerable — and particularly unprepared.

"Y2 what?" a doctor's receptionist answers in response to a reporter's request to speak with the physician about the millennium computer bug. It's that lack of understanding of the potentially sweeping impact of the Y2K problem that is "frightening," says **David Kibbe**, MD, MBA, CEO of Future Health Care in Chapel Hill, NC, and a major contributor to the Y2K guidelines published by the American Academy of Family Physicians (AAFP) **(see chart, inserted in this issue.)**.

Kibbe, who spends most of his time speaking to groups of physicians, helping them find solutions to the Y2K problem, says physicians and their offices are "absolutely not aware of the problem. They are clueless and worst of all, they have no interest whatsoever in the problem. They think if they have Windows 98, they're OK."

The solution to the problem is "a lot more than Windows 98," says **Elizabeth Wheeler**, a registered records administrator with Superior Consultants of Southfield, MI.

It's not too late to get started, say Kibbe and Wheeler, both of whom spend most of their days urging physicians and health care providers to get moving before the clock strikes midnight and their coach turns into a pumpkin.

No crystal balls

"It's actually worse than the Senate says, particularly in the physician practice sector," Kibbe says. He thinks the problem is particularly alarming because "no one can really predict the effects."

But some effects are certain, says the Senate report released early March.

Everything — from software driving a plethora of records and billing systems to computer chips that drive biomedical devices to electronic interfaces between physicians, hospitals, and patients — could potentially shut down.

Year 2000 poses critical challenges for health care

For health care organizations, year 2000 (Y2K) compliance is critical to avoid life-threatening disasters.

In addition to the hardware and software issues that all industries face, health care providers have to consider Y2K issues for every piece of medical equipment that is date-aware, ranging from IV pumps to centrifuges.

The need is especially critical since the risks can affect patients' well-being. Companies must also ensure their vendor supply chain is Y2K compliant, experts say.

"Health care organizations have traditionally been one of the slowest responders in regard to Y2K," says **Jim Klein**, research director at the Gartner Group, in Stamford, CT.

Gartner research shows health care organizations have budgeted, on average, less than $5 million for Y2K projects — about one-third of the amount believed necessary when legal fees, contingency plans, business continuity expenses, and project management costs are taken into account.

Sheldon I. Dorenfest & Associates, a health care consultancy in Chicago, notes that resources will be harder to find as the deadline nears.

Consequently, information technology professionals with the experience needed to help solve Y2K problems will continue to be in great demand. ■

Y2K-relevant Web sites

- American Academy of Family Physicians: **http://www.aafp.org/fpnet/y2k**
- American Medical Association: **http://www.ama-assn.org (search Y2K)**
- U.S. Food and Drug Administration: **http://www.fda.gov/cdrh/yr2000**

All of those reflect what Kibbe calls the "interdependency" of these systems and their vulnerability if one link in the chain fails.

Susan Rehm, MBA, AAFP's manager of practice development in Kansas City, MO, says the lack of awareness of the problem is "the rule, not the exception."

"I think that's why the health care industry is lagging way behind," she says.

Rehm adds that the issue is most prevalent among small clinics and medical practices, so "those are the ones we're trying to reach."

Rehm and Kibbe collaborated on the AAFP's guidelines to help members find their way through the Y2K morass, liberally sprinkled with a few dire warnings. Among them: The possibility of legal liability for non-compliance from patients who might be injured if systems fail.

Ensure all vendors are compliant

Y2K failures could trigger a tidal wave of lawsuits costing an estimated $1 trillion in legal expenses across public and private sectors, the AAFP predicts.

While there is a great divergence of opinion on the potential failure of biomedical devices like pacemakers, Rehm says, "If I were a physician with patients with pacemakers, I would be contacting the vendor or distributor of that particular appliance and determine it's Y2K-compliant and get the answer in writing."

AAFP warns its members that they must go "much farther than ensuring office computers are compliant," says Rehm.

Among those recommendations: Physicians should communicate with all vendors of computer-related hardware or software, plus they should contact third parties, like banks, credit unions, reference laboratories, pharmacies, claims processing clearinghouses, billing services, third-party carriers, utility companies, alarm / security services and elevator companies.

April 5 was the first wake-up date when the Health Care Financing Administration (HCFA) began to require full eight-digit dates on all Medicare and Medicaid claims.

The agency promised to reject all claims not submitted in the proper format.

Rehm says some doctors have had claims rejected, which "got their attention since most practices live month by month, hand to mouth, and don't have the cash reserves" to withstand delays in payments.

On March 2, Congress' General Accounting Office reported HCFA was overstating its Y2K readiness and that systems crashes could cause billions of dollars in Medicare and state-administered Medicaid health benefits to be delayed or even go unpaid.

The agency's administrator, **Nancy-Ann DeParle**, told the House subcommittee on government, management, information and technology she is "confident that HCFA's own year 2000 systems issues will be resolved well before Jan. 1, 2000."

Device failure

Could Y2K problems cause the failure of biomedical devices? The Senate report says they will.

Wheeler and several other experts say hospitals are particularly vulnerable to the failure of devices like fetal monitors, infusion pumps, and other complex equipment that interface with other computers because of the sheer volume. There are hundreds of such devices in the average hospital.

She recommends extensive in-house testing of all such devices, even if manufacturers have certified they are compliant and suggests checking for compliance certifications on the Food and Drug Administration's (FDA) Web site.

"Yes, some devices are going to fail, even if they have been tested and found functional," Wheeler says. "A case or two of litigation where liability could be millions of dollars for one incident could put a practice or a small hospital out of business."

"Due diligence and documentation are essential," Wheeler warns.

Hospitals have to address all those hardware and software issues, plus take a long, hard look at every piece of medical equipment that is date-aware, ranging from IV pumps to centrifuges which can quite literally be essential for life or death. They must also be sure their vendor supply chain is Y2K-compliant, experts say.

"Health care organizations have traditionally been the slowest responders in regard to Y2K," says **Jim Klein**, research director at the Gartner Group, information technology research consultants in Stamford, CT.

Klein says the health care industry "has never really been technologically adept and has relied far too heavily on vendors to assure them everything is OK."

"They need to do their own research to be sure," he adds.

Compliance is expensive, as **Tom Bauld** knows.

Bauld, PhD, a biomedical engineer at Mercy Health Services in Farmington Hills, MI, says his system of about 25 hospitals, covering 13 communities in Michigan and Iowa, has spent $70 million on Y2K compliance and the job is still far from done.

Mercy devised a version of Y2K triage to weigh the possibility of failure of various devices against the impact of such a projected failure.

Based on manufacturers' certifications of compliance, Bauld says, "We are making good progress, but we still have a lot to do. We don't see anything out there that would cause a Level 4 problem (serious injury or death)."

"It's important for people to put it in perspective. It's a big problem, and huge resources are going into fixing it," Bauld says.

In addition to the hardware and software issues that all industries face, health care providers have to consider Y2K issues for every piece of medical equipment that is date-aware, ranging from IV pumps to centrifuges, Klein says.

He says the biggest problem will be in imbedded devices such as pumps and monitors, not because there is a "huge" likelihood of failure, but "because of the potential for embarrassment and lawsuits is enormous" if there are glitches health care providers should have been able to identify before the fact.

Gregory Bergman, MD, a family physician who practices in rural Minster, OH, has made some preparations to ensure the smooth transition to the new millennium, even though he admits there is probably more he can do.

He invested in a new computer system, complete with about $30,000 in upgraded software a few months ago, so he's as computer ready as he thinks is necessary.

While he has computerized patient records, he still keeps paper records.

Bergman also sent letters to all vendors with whom his practice does business.

"Of course, nobody replied to my letter," Bergman laughs. "I've been on the receiving end of a few of those letters myself, and I have to admit, I didn't answer them either."

"I've done what I can, but I know there are more aspects of Y2K compliance," he concludes.

For more information, David Kibbe of Future Health Care can be reached at (800) 757-1354; Elizabeth Wheeler of Superior Consultants at (248) 386-8300; AAFP's Susan Rehm at (800) 274-2237; and Tom Bauld of Mercy Health Services at (248) 489-5047. ■

CFS presents diagnostic, treatment challenges

NADH may offer relief

It's known as a "trash bag" — a disease at the bottom of the diagnostic barrel, a diagnosis made only after everything else has been ruled out.

Chronic fatigue syndrome (CFS) is a disease that defies a specific definition and one some believe does not exist. Its cause is unknown. There is no definitive diagnostic test and no substantive treatment.

Yet an estimated 500,000 people have been diagnosed with chronic fatigue syndrome, and millions more believe they have the disease nebulously defined by the Centers for Disease Control and Prevention (CDC) in Atlanta as "characterized by profound tiredness or fatigue . . . lasting six months or longer."

Sometimes it's a lot longer.

Boyce Tollison, MD, a family physician in Easley, SC, has a patient who has been sick for several years.

"I put her through all the work-ups —

KEY POINTS

- Chronic fatigue syndrome is often the diagnosis of last resort.
- The debilitating disease affects 500,000 people, and millions more believe they have it.
- Depression is often linked to CFS.
- Nutritional supplement offers positive results for some patients in a clinical trial.

About Chronic Fatigue Syndrome (CFS)

Clinically evaluated, unexplained, persistent or relapsing chronic fatigue lasting more than 6 months, and one or more of the following:
- substantial impairment in short-term memory or concentration;
- sore throat;
- tender lymph nodes;
- muscle pain;
- multijoint pain without swelling or redness;
- headaches of a new type, pattern, or severity;
- unrefreshing sleep;
- post-exertional malaise lasting more than 24 hours.

Conditions that exclude a diagnosis of CFS
Medical conditions which may explain the presence of chronic fatigue:
- untreated hypothyroidism, sleep apnea, narcolepsy, and iatrogenic conditions such as side effects of medication;
- some types of malignancies, chronic hepatitis B or C infection;
- past or current diagnosis of a major depressive disorder, bipolar affective disorders, schizophrenia, delusional disorders, dementia, anorexia nervosa, or bulemia nervosa.

Conditions that do not exclude diagnosis of CFS
Any conditions defined primarily by symptoms unconfirmable by diagnostic laboratory tests:
- fibromyalgia, anxiety disorders, somatoform disorders, nonpsychotic or melancholic depression, neurasthenia, and multiple chemical sensitivity disorder;
- conditions under treatment sufficient to alleviate symptoms, including hypothyroidism and asthma;
- treated Lyme disease or syphilis.

Source: Centers for Disease Control and Prevention, Atlanta.

rheumatoid and psychological — and she essentially became disabled. Now she's incapacitated," he says.

"The only way to diagnose CFS is to rule out all the common causes of fatigue."

Although he's experienced the frustration of trying to help a patient whose condition defies help, he thinks "chronic fatigue exists as an entity; it's not as prevalent as people try to imply it is," he says.

Some doubt the existence of CFS

There is a wide variety of opinions on diagnosis, treatment, and even the existence of the disease for which the federal government grants disability benefits and for which diagnostic guidelines have been issued by the CDC.

Fatigue often manifests as depression, and depression manifests as fatigue, creating a Catch-22, says **Meir Kryger**, MD, professor of medicine and director of the Sleep Disorders Center at the University of Manitoba (Canada) at Winnipeg.

Kryger says he is doubtful chronic fatigue syndrome exists at all, and suggests "many patients are married to their diagnosis and perhaps to the disability payment they can get from it."

Joseph Bellanti, MD, director of the International Center for Interdisciplinary Studies of Immunology at Georgetown University Medical Center in Washington, DC, is sure CFS exists.

"I am convinced it's not a psychiatric entity, although a lot of patients with CFS are depressed," he says. "It's a chicken and egg thing."

One major managed care company handles CFS like any other condition.

"We understand chronic fatigue syndrome is a diagnosis made by eliminating other possible diagnoses. We cover tests and treatment as ordered by the primary care physician," says **Betsy Sell**, spokeswoman for Aetna U.S. Healthcare in Blue Bell, PA.

Treating CFS is as challenging as making a diagnosis. According to the CDC, medications that have been shown to be useful for relief of CFS symptoms include NSAIDS, benzodiazepines, tricyclic antidepressants, serotonin reuptake inhibitors, non-sedating antihistamines, and antihistamines.

One of the most promising therapies came from Bellanti's study of a nutritional supplement, NADH (nicotinamide adenine dinucleotide), a naturally occurring coenzyme, produced "encouraging" results.

The study, published in the February 1999 issue of the *Annals of Allergy, Asthma, and Immunology*, shows improvement for nearly one-third of the participants.

The substance, marketed in the United States under Enada, has been used in Europe for 10 years as an intravenous treatment for Parkinson's disease by George Birkmayer of the Birkmayer Institute in Vienna, Austria, where L-dopa was first used to treat Parkinson's, according to **Matt Fitzsimmons**, MBA, president of Menuco Corp. in New York City, which found a way to stabilize NADH and market it as a nutritional supplement.

Few suffer side effects from NADH

Bellanti says his double-blind placebo-controlled crossover study of 26 patients diagnosed with CFS under the CDC's criteria proves Enada is one of the few nutritional supplements to be tested under the FDA's review process for new drugs.

"We didn't have to do it that way," Fitzsimmons says, "But we wanted to follow the FDA's drug approval methods to use the tried and true methods and the highest level of investigation to show this is safe and effective."

Bellanti's study shows 31% of the participants reported improvement after they took 10 mg of NADH or a placebo for four weeks; four weeks with no medication, and four weeks NADH or placebo. Patients reported increased energy, alleviation of symptoms, and improvement in quality of life.

In a follow-up open label study of 80 participants, 73% showed marked improvement over time and no side effects or adverse reactions with other medications.

Bellanti concluded NADH may be a valuable adjunct therapy for the management of CFS and recommends further clinical trials.

Enada can be purchased over the counter at health food stores and through buyer's clubs.

NADH occurs in all living cells and plays a key role in the body's energy-producing mechanisms. It occurs naturally in muscle tissue of fish, poultry, and cattle.

Researchers have been unsatisfied with other recent studies on drug therapy.

One study looked at the possible use of low-dosage hydrocortisone, but rejected the "meager improvement in subjective wellness" on the premise the benefits were outweighed by adverse effects, including adrenal suppression by including the use of low doses of hydrocortisone.

Non-pharmacological therapies that have been used with varying degrees of success include:

- **behavioral therapy;**
- **physical therapy and exercise routines**
- **acupuncture and acupressure;**
- **stress reduction and relaxation techniques;**
- **massage therapy.**

While the cause of CFS is unknown, there are theoretical connections with other viruses known to cause severe fatigue. CFS has also been known as chronic Epstein-Barr virus disease, chronic fatigue immune dysfunction syndrome, epidemic neuromyasthenia and myalgic encephalomyelitis.

The majority of patients diagnosed with CFS are Caucasian women between the ages of 25 and 45.

For more information, Meir Kryger of the University of Manitoba can be reached at (204) 235-0021; Joseph Bellanti of Georgetown University Medical Center at (202) 687-5100; and Matt Fitzsimmons of Menuco at (212) 320-2266. ■

New disease management group focuses on education

The recently launched Disease Management Association of America (DMAA) has a broad and ambitious agenda to shape the industry, set quality standards, and provide a diverse educational forum for health care professionals.

The group says it is the only association dedicated to educating the health care industry, government, employers, and the general public about the role disease management programs can play in improving outcomes for people with chronic diseases.

Al Lewis, the Wellesley Hills, MA-based association president, says disease management has become important not only to patients, but the providers, payers, and even employers.

"They recognize its potential to improve health outcomes across a health plan's or a provider's entire population as well as lower costs and improve satisfaction with care," says Lewis, who is also executive director of the Disease Management Purchasing Consortium in Newton, MA. ■

Alternative therapies have place in asthma treatment

Breathing techniques may have a positive effect

The patient was wheezing and gasping for breath in the emergency department at Beth Israel Hospital in New York City. The patient's doctor knew it was a particularly acute exacerbation.

"In fact, inside I was very anxious and worried, but outside I tried to be calm and reassuring," says **Zvi Ben-Zvi**, MD, director of pediatric pulmonary medicine at Beth Israel Hospital. "I was conducting a study, but I didn't think this patient was a candidate because his condition was too severe. But I started to wheel him to the pulmonary lab anyway," and tried to get him to relax.

"I told him to breathe in deeply and slowly and breathe out through pursed lips," Ben-Zvi says of the incident that "changed my attitude toward these complementary therapies." In the few minutes it took for the doctor to get his patient to the lab, the exacerbation was over. "He was fine. His asthma was too mild to be studied."

"I was very affected by the experience," says Ben-Zvi. "I was amazed, and that's what brought me to the idea of trying hypnotherapy and other methods of treatment."

Complimentary therapies gain supporters

Now Ben-Zvi is among hundreds of doctors and researchers around the world who are studying nontraditional means of treating chronic diseases. Known as alternative, complementary, or integrative medicine, most practitioners hope to bring mainstream and non-mainstream medicine together for the benefit of patients.

Patients avail themselves of the alternative therapies, oftentimes without the knowledge of their medical practitioners.

The December issue of the *Journal of Asthma* reported among the most popular therapies among asthmatics in Britain are breathing techniques, homeopathy, herbalism, yoga, and acupuncture. The techniques have strong support in the United States as well. In America, these therapies ring up $12 billion a year. Experts say those who suffer from moderate to severe asthma are very likely to look for relief in nontraditional treatments.

Asthma patients a natural for new therapies

Researcher **Edzard Ernst**, MD, PhD, FRCP, professor in the department of complementary medicine at the University of Exeter Postgraduate Medical School in England, says asthma patients are "prime candidates" for complementary therapies because their disease is a "benign chronic condition for which mainstream medicine cannot offer a reliable cure."

Of the 4,741 asthma patients included in Ernst's study, 59% said they had used complementary therapies that helped to a "slight" extent or to "some" extent. Of the 41% who had not used alternative medicine, 67% said they would be willing to try it in the future.

He concluded this area of health care warranted more rigorous investigation, to make physicians more aware of the extra services their patients are seeking and to determine the efficacy of the techniques used.

Hypnosis, music being used in treatment

Ben-Zvi, who is also a licensed acupuncturist, has tried hypnotherapy for exercise-induced asthma with "good results" and is currently conducting a music therapy study at Beth Israel that is already showing positive results by teaching asthma patients to play wind instruments. He theorizes that the breathing necessary to play a flute. an oboe, or a clarinet is exactly what asthma patients need to open and strengthen their airways.

Yoga teachers have taught their students deep, slow abdominal breathing for centuries. That's something Ben-Zvi and many other doctors think is helpful for asthma patients, not only

KEY POINTS

- Asthma patients use a wide variety of alternative remedies with varying degrees of success.
- Breathing techniques are most popular and most effective.
- Complementary medicine treats asthma as a symptom of a body that is out of balance.
- Most practitioners recommend alternative therapies in conjunction with traditional allopathic therapies and medications.

Glossary of Alternative Therapies

- **Acupressure**
  Commonly described as acupuncture without needles. Finger and thumb pressure is applied to acupoints to relieve specific conditions and promote harmony and good health.
- **Acupuncture**
  Part of traditional Chinese medicine. Practitioners insert fine, sterile needles into specific points on the body as a treatment for disorders ranging from asthma to alcohol addiction. In the West, it is most often used for pain relief.
- **Ayurveda**
  The major traditional holistic healing system of the Indian subcontinent. Practitioners believe well-being is affected by three vital energies that constantly fluctuate. Treatment can include purifying techniques, diet, yoga postures, and breathing exercises.
- **Homeopathy**
  Based on the theory of "like cures like." A poison that causes symptoms of illness in a healthy person can treat the same symptoms when used in minute amounts in one who is ill.
- **Hypnotherapy**
  Practitioners induce a state of consciousness akin to deep daydreaming in which the patient is deeply relaxed and open to suggestion and can be desensitized to fears, phobias, or pain.
- **Reiki**
  A form of Japanese spiritual healing. Practitioners draw on "reiki energy" and channel it to areas of need in themselves and their patients.
- **Yoga**
  A complete system of body postures and breathing techniques, originally developed (in India) as a preparation for spiritual development.

Source: Encyclopedia of Healing Therapies. Woodham and Peters; 1997.

because of the "deep breathing as opposed to the shallow chest breathing many asthmatics use," but also because of the relaxing effects of the deep breathing.

Alternative therapies rarely target just one condition, says **Eileen Silva**, MS, founder of the Hegan Center in Southlake, TX. "We treat the body as a whole and see something like asthma as a symptom of a larger imbalance. I look at the big picture."

Silva, who teaches seminars in integrative medicine to physicians and other health care professionals, looks at imbalances in microorganisms and in highly acidic pH factors for patients with asthma and treats them with a variety of modalities, centering on detoxifying the body, ridding it of parasites, and neutralizing the acidity. She includes a rather unique suggestion for asthmatics: trampoline jumping as the patient can tolerate it.

"It stimulates the lymphatic system, helps the toxicities come out, and has some pretty remarkable effects on patients with asthma," Silva says. She tells her patients to begin by jumping lightly for one to two minutes, and when they feel better, increasing it to a regular program for 15 to 20 minutes a day.

Silva also advocates drinking lots of plain, filtered water to help drive detoxification. She recommends drinking at least two quarts a day, not including coffee, tea, or soft drinks.

She also notes alternate therapies should be used in conjunction with medications and protocols prescribed by traditional practitioners.

"If they still need aggressive therapy in terms of medications, then they need it. I would never undermine traditional health care specialists." However, she says, as patients begin to bring their bodies back into balance, they and their doctors may find their need for medications change.

Many asthma patients respond to herbs

Ernst's study showed physicians had little knowledge of alternative therapies and recommended they familiarize themselves with such therapies in order to more effectively treat their patients.

Grace Ormstein, MD, scientific advisor for Ayurveda Concepts, an herbal remedy company in Houston, says asthma patients respond well to mixtures of herbs, which may include licorice, aloe vera, and yarrow. Butcher's broom is also commonly used to help reduce inflammation in the airways.

Herbalists are careful to caution patients and physicians that herbs are powerful medicines and they should not be taken lightly.

Ormstein says her job is to educate patients about the alternatives available to them.

"They have to make the decision, but if they're on conventional treatment, they need to communicate their decision to use herbs to their physicians," Ormstein says.

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Peers help Medicaid patients manage asthma

First step is understanding readiness to change

It's difficult enough to get mainstream group-health patients to comply with an asthma management program. Imagine how much more difficult developing an effective asthma management program would be if your patients were homeless. One health plan finds recruiting community members to work as peer outreach specialists reduces barriers to care in Medicaid populations.

"To get people to comply with disease management plans, you have to establish a strong bond with them," says **Gabrielle Reed**, PhD, RN. Reed is an instructor of medicine in the division of health behavior research at the Washington University School of Medicine in St. Louis, which runs an asthma management program for Medicaid patients. "You can't walk into the community we serve and be white and middle-class and hand down a medical prescription from on high," she says. "The people simply won't hear you. Some are even homeless. They're not ready to talk about asthma. We have to help them find housing first."

Washington University recruited young African American women with children to work with its asthma management program. "We hire interested women right out of the community. It's neighbors helping neighbors, and it begins with the enrollment stage."

When children are admitted to the hospital for asthma, their names and telephone numbers are given to two older African American women who call the children's families to explain the program and invite participation. "The voice on the phone is a recognizable voice. It's comfortable to our moms," says Reed.

To encourage caregivers of asthmatic children to participate in the program, Washington University pays caregivers $10 for answering the program's questionnaire.

"We randomize half the group into a treatment group," Reed says. Members in the treatment group are assigned a peer specialist. The peers visit caregivers at home and gather information to determine the caregiver's stage of readiness to change.

Physicians and nurses from Washington University train the asthma management program's peer outreach specialists in basic asthma management, signs and symptoms of an asthma episode, and the stages of readiness model of health behavior change pioneered by researchers

KEY POINTS

- Program carefully selected reasonable goals to increase possibility of compliance.
- Peer specialists are trained to educate Medicaid population about asthma.
- Peer specialists determine caregiver's readiness to follow an asthma management plan before offering educational materials.

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at the University of Rhode Island in Warwick. **(For a description of the five stages of readiness, see story, inserted in this issue.)**

"When we first explain the stages of readiness to our peer specialists, they immediately respond to it. They say it's so intuitive," notes Reed. "They easily sense which caregivers are ready to receive educational materials and make changes in their child's asthma management and which aren't. If they aren't ready, we work on eliminating barriers to behavior change and moving them forward.

"If we pay attention to how ready people are to change, we don't run the risk of patients tuning us out," says Reed.

Most of the research on the stages of readiness has revolved around health promotion programs. The key to successfully applying the model to disease management is carefully selecting the behaviors you target for change, notes Reed. "You have to select behaviors that will actually produce health changes in your population."

She suggests using focus groups to select those behaviors and also to "get your vocabulary right. When you finally get your patients to the point where they are interested in managing their asthma, it's great to have teaching materials appropriate to the population," she continues. "And not only should the reading level and the language used be appropriate, but the illustrations should look like your target population."

Washington University targeted seven behaviors for its asthma management program:

❒ Primary caregiver has a copy of child's asthma action plan.

❒ All other caregivers have been made aware of the child's asthma action plan.

❒ Primary caregiver gives rescue medications according to asthma action plan.

❒ Primary caregiver brings child in after four months for regular follow-up care.

❒ Primary caregiver eliminates or reduces child's exposure to secondary smoke and cockroaches.

"Our moms recognize their child's asthma symptoms," Reed says. "They know when their child is going to get bad, but they wait too long to give prescribed rescue meds, and the children end up in the emergency room."

To encourage caregivers to take action to prevent a severe asthma episode, peer specialists often accompany caregivers to their child's physician's appointment. "The peer specialist's a role model to help caregiver's communicate better with their child's doctor," explains Reed. "Many of our caregivers have a tendency to go to their child's appointments without really dialoguing with the doctor. They may hear all the asthma information and still go home and ask their grandmother what to do. The doctor may never know that the advice was never followed."

To make change even more difficult, Reed admits that many caregivers of children in the asthma management program have little control over their child's physical environment. "We know we're sometimes fighting an uphill battle with issues like secondhand smoke. Even if the mom doesn't smoke, she may leave her child with a grandmother who smokes while she works. She needs her mother to baby-sit, and we come in saying, 'Don't you realize that secondhand smoke is bad for your child?'" she says. "If peer specialists look at that mom's face and see from her expression that she's not ready to make that change, they start talking around that issue. They plant seeds of information. They challenge the moms to figure out how to make things work.

"Nobody makes changes unless they think they're going to work," adds Reed. "Facts and figures don't go over well until somebody believes you." ■