

Occupational Health Management™

*A monthly advisory
for occupational
health programs*



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Telehealth starting to make inroads in occ-health; future is virtually limitless

New regulations, lower costs may help growth

Ever since NASA began tracking the health status of its astronauts through its now-familiar telemetry systems, the ability to perform health-related diagnosis and therapy from a distance has intrigued health professionals around the globe. According to occ-health experts, however, their field is just starting to reap the benefits of telehealth and telemedicine, which NASA defines on its web site as "the integration of telecommunications, computer, and medical technologies."

"In occupational health, the use of telehealth is just starting," says **Susan A. Randolph**, MSN, RN, COHN-S, FAAOHN, president of the Atlanta-based American Association of Occupational Health Nurses (AAOHN). Randolph, who prefers to use the term telehealth as opposed to telemedicine, because "this broader term includes a variety of overall disciplines" such as health promotion and counseling, says she has seen a greater application in the past five years or so.

John Shober, ASP, CHMM (certified hazardous materials manager), who heads his own employee health and safety consulting firm, CE2, in Greely, CO, agrees.

"One of the problems I see as a whole is that we are still in the infancy of incorporating these telehealth applications," he notes. "This is a learning curve issue and, to a certain extent, also impacted by cost and [data] transmission rate."

Jonathan D. Linkous, executive director of the American Telemedicine Association (ATA), in Washington, DC, even uses a broad definition for telemedicine, encompassing "the delivery of information affecting patient care over long distance using telecommunications."

The potential applications are extremely varied and potentially limitless, he continues. "On the one end is remote robotic surgery," he notes. "Telemedicine encompasses everything from patient monitoring in the home to interactive communications between patients and physicians, to sending medical images out to radiologists — even continuing medical education." (See the article on p. 28 for a look at just how far telehealth may go in the future.)

Some of the barriers that may have prevented widespread use of telemedicine in the past seem to be falling, say observers.

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"In particular, in the field of nursing, the National Council of State Boards of Nursing has passed what was called the Nurse Licensure Compact," notes Randolph. "This allows nurses with a license in one state to use that license to practice in others; this has opened the doors in many cases." Each state has to pass its own nursing licensure compact, she notes. As of this writing, she says, 20 states have adopted such legislation, and seven more have introduced but not yet passed such legislation.

Case management is one area of occ-health in which this may have a significant impact, says Randolph. "You may be responsible for sites in a variety of different states," she notes. "Now, you may be able to talk to workers in all those states and provide assistance, either telephonically, electronically, or with other sorts of delivery methods."

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Editorial Questions

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Cost is seen as another potential obstacle to the implementation of telehealth applications, but it doesn't have to be, says Linkous.

"The costs of doing telemedicine have several key components: equipment, lines, and personnel," he notes.

"Each of those has huge variations, depending on the applications. You could be talking about just a desktop video camera used over the Internet to connect to some therapist, and then you're only looking at a couple hundred dollars. On other end, robotic surgery uses multiple redundancy T3 lines with cameras, and can cost several hundred thousand dollars. But depending on what you want to do, costs *can* be moderate."

What's more, a good deal of the costs can be borne by the providers or vendors, notes **Karen S. Rheuban, MD**, medical director of the office of telemedicine at the University of Virginia (UVA) in Charlottesville.

"There are several ways to approach [costs]," she observes. "You can deliver services on site at the employer end, or a second opinion can be obtained by sending the employee to a regional telemedicine center." In the UVA network, she notes, there are 47 such sites. "We are connected with community hospitals, local centers, rural clinics and prisons, so a patient in a rural community or with a rural employer can actually save long distance travel and prevent lost wages."

As far as fees, the system accepts a sliding fee scale based on the site used, plus Medicare and/or Medicaid reimbursement. "When it's an occ-health case, the employer or insurer may be paying for the care as well," she notes, adding that consultation with a specialist costs the same as if the patient had gone directly to the specialist's office.

"We've also gotten a large grant in Virginia from Anthem Blue Shield to cover the non-insured for services," she adds.

Shober sees similar opportunities, especially in ergonomics. "Therein lays the opportunity to utilize a lot of the resources outside of your company's skill sets," he asserts. "If you don't have an in-house occ-health person or ergonomist, you can connect to one."

Applications virtually limitless

If you can imagine a given telehealth application, it most likely either exists or it soon will, given the wide variety of uses cited by the experts.

"Second opinion clinical services can readily be

delivered, especially when the employee is at a distance," notes Rheuban. "This can include face-to-face consultation, with the integration of electronic stethoscopes, ophthalmoscopes, ocular evaluation and other devices, as well as the incorporation of digitally acquired radiographic images, CAT scans, MRIs, and so forth."

Her system currently provides services in 25 different specialties and 24-hour availability of staff. "We do OSHA-mandated training for remote areas, and we also have the ability to provide training for corporate health care entities," she notes. "We have one relationship with a major corporation for CMEs."

"We use telehealth for nurse practitioners and others to extend our services to 14,000 faculty and students," notes **Kathleen Golden McAndrew**, MSN, ARNP, CS, FAAOHN, an AAOHN vice president and executive director, university health services, and adjunct professor, college of nursing and health sciences, at the University of Massachusetts, Boston. "We have a commuter population, and our staff has more than eight-hour work days, so we have expanded our services through technology."

Health services have become web-based, she reports. There are many interactive health promotion and wellness activities available on the web, as well as a virtual library full of health information.

"We also have the ability to have Q&A on health, and assessments on smoking, depression, anxiety, and substance abuse using nationally standardized tools. These can be completed in the privacy of clients' homes," she explains.

In addition, one of the nurse practitioners carries a departmental cell phone at all times. "Instead of getting locked up in voicemail jails, patients can talk directly with whoever answers the phone, and triage proceeds from there," says McAndrew. "Very often they do not have to be seen, but the nurse practitioner has electronic medical records and can pull up their chart on the screen."

She adds that the department also is employing epidemiological telehealth applications. "We recently had a large influx of influenza; so instead of having people come in, they call the hotline so they don't contaminate a lot of well people."

Patients also can go on-line and track their appointments, or set them up during hours the clinic is closed. "This has definitely enhanced patient care, and freed us up to do what we should be doing — hands-on health care," says McAndrew.

Randolph sees a number of case management applications being used. "If you have an injured worker in another state you are responsible for, you can look at various referrals, advise them, and touch base with the care providers about return-to-work prospects," she notes.

"Also, some professionals may be doing some counseling through virtual clinics," Randolph adds. "Or people involved in sales or on travel status may be able to check information through the Internet. A good deal of health promotion information can be shared as well."

More growth seen

The experts see nothing but growth ahead, both in their own practices and in the industry in general. "I think we will be using telehealth to assess workplaces for ergonomics," says Shober.

He specifically envisions using store-and-forward video technology. This involves videotaping a job task, for example, and forwarding the tape via teleconference and reviewing it. "This way, you can locate problem tasks and movements and then formulate a solution," he suggests.

Shober also envisions using computers, software, and sensors to create marker sets that show how movements can be altered to prevent injury. "You can also use virtual reality for 3D modeling for designing workplaces," he posits.

"We hope to do more and more," McAndrew says. "We've ordered laptops for all the nurse practitioners so they can do patient education, store libraries of pictures, access health education on the web, and look at all of this together with their patients, including evidence-based outcomes so the patient can make more informed choices."

For her part, Rheuban sees "broader deployment, cheaper costs, and more accepted reimbursement by more of the payers."

Shober predicts, "We are on the cusp" of significant growth. "As cable communications and fiber-optics continue to be installed, it will increase bandwidth to smaller companies."

"Currently, the largest use of telehealth is for remote imaging, X-rays, and pathology," notes Linkous. "Occupational health will have future growth based on what the patients do and what they need. Right now, what's growing is anything from dermatologists looking at skin rashes to psychiatrists doing consultation. The integration of telemedicine with occupational therapy and physical therapy is growing."

In fact, he notes, his organization has a new

special interest group called telerehabilitation, which involves vocational rehab with two-way video, home assessments, and a mobile rehab facility.

The bottom line, says Linkous, is that future growth of telehealth will be dictated by these drivers:

- **Cost reduction:** Patients will not have to travel to see health professionals, or vice versa.
- **Improved care:** This inevitably results when telehealth is used on a more frequent basis.
- **Increased market share:** Occ-med clinics can service a much larger area than they otherwise could.

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Smart building concept: The future of occ-health?

The latest technology in computerized sensory equipment may one day lead to smart buildings that can detect hazards and accidents, says a health informatics expert.

"We are currently working with smart home technology involving an environment wired with sensors, video monitoring, and so on, that allows

people to stay at home and receive health services and maintain their quality of life," says **George Demiris**, PhD, assistant professor and director of graduate studies for health informatics programs at the University of Missouri School of Medicine in Columbia.

Currently, he explains, his team is studying the elderly, using sensors to prevent falls, enhance medication compliance, and interact with people at remote sites.

"The technology is there," Demiris notes. "Based on that model, we see an impact not just for the frail elderly and home care, but for the concept of smart buildings."

When people think of smart homes or smart buildings, they visualize the ability to automatically turn on lights, adjust temperatures, make coffee, and so on, but the technology can do much more, he says. "You can utilize video conferencing equipment, sensors, cameras and detectors to prevent falling and other accidents."

For example, Demiris' team collaborated with the computer science and engineering departments at the university to develop a sensor mat that detects when a person has fallen. "It might also, for example, detect a broom on the floor as well as a human body near the broom, and trigger an alarm," he explains.

Privacy concerns are addressed by having cameras show real images in the building, but only *anonymized* images of people. "You do not see Mr. Smith reading the paper, but the figure representing Mr. Smith can be recognized as doing certain activities."

The team currently is testing two strategies for preventing falls. One involves brighter lights in hallways, aided by cameras and sensors to detect objects in an individual's path.

"If a hallway sensor detects, say, a cat or a dog, the lights would automatically turn on," says Demiris. "In an office building, an alarm could be sounded as notification if something is present that is not part of the normal pattern."

This technology does not have to be built into an entire office building, Demiris notes. "It could be just the part of the building occupied by a specific company," he explains. "Probably the model would involve the employer absorbing the cost."

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Medical direction key to success with AEDs

Communication, training also critical

Having automatic external defibrillators, or AEDs, installed in the workplace is of clear benefit, but there are a number of key strategies that should be followed to ensure program success, says **Thomas W. Zoch, MD, FACP, FACEP**, of Thedacare at Work in Appleton, WI.

And he should know. In the past year or so, Zoch's occupational medicine division has assisted 10 companies with the implementation of more than 60 AED's, and approximately five to 10 other companies and/or school districts are considering the program. Thedacare is an organization that supplies medical care for 250,000–300,000 individuals and also interacts with two hospitals in the Fox Valley area of Wisconsin.

"I am a board-certified internist and emergency medicine physician who was in the ER [emergency room] for 18 years," notes Zoch. "We handled hundreds of cardiac arrest patients, including many from the [plant] floor, and one of the most frustrating experiences is to have an individual bought in way too late."

During those early days, he recalls, there was only a 2% survivability-to-discharge rate. After joining Thedacare, he was able to increase it to 7%, but, he concedes, "that was still not nearly good enough."

The key to getting the rate even higher, he concluded, was to get the defibrillators in the hands of first responders.

"The companies in the area were very open to the program and very excited," Zoch recalls. "Many already had emergency response teams in place, and this was a natural fit, since those teams could be trained."

Four important components

His extensive ER experience had convinced Zoch that a workplace AED program required four key components for success. They include:

1. Strong medical direction: "The biggest issue is to have a physician medical director with passion and experience who believes in the program and the product, realizes these items save lives, and hopes that one day they will be as prevalent as fire extinguishers," says Zoch. He considers

AEDs to be inexpensive, safe to use, and of course, they save lives. The devices cost anywhere from \$1,200 to \$2,000.

A medical director with passion can help convince reluctant would-be participants, he explains. "A few entities, including school districts, had concerns about litigation and costs," Zoch relates. "In terms of potential litigation, I turned the issue back on the organizations, saying that at some stage they might be held liable if they did *not* have AEDs."

He was able to obtain funding in some cases to underwrite the costs, all the while providing medical leadership and expertise and serving as advocate and spokesman for the program.

2. Emergency Medical Services (EMS) notification and interaction: In Wisconsin and in several other states, state law requires that the EMS system be notified of the presence of AEDs in a plant site. "This, in turn, leads to further discussion of where the AED is, what model it is, and how it can interface with their equipment," notes Zoch. "This way, it saves time when they get to the scene, and helps make the transition from first response to second response seamless." This communication works two ways, he adds. "In return, EMS personnel are more apt to share event documentation with the plant, so feedback can take place," he says. "In the future, this could save crucial minutes and save lives."

3. Overseeing proper initial and recertification training: This is another key responsibility for the physician/medical director; ensuring that rescuers are properly trained and their skills maintained. "There are several excellent programs out there; we use the American Heart Association's [AHA] Heart Saver program, which is a four-hour course that needs to be updated every two years," says Zoch. "We recommend that programs go even a step further, and that at least once a year, the plant should go through a mock drill. This reduces anxiety and improves reaction time."

The Red Cross also offers an AED course, he notes.

4. Helping with the proper selection of the AED, the number required, proper location of the AED in the plant, and assistance in developing an internal response system at the work site: "This process requires the medical director to visit the plant and walk the site," says Zoch. "You want enough defibrillators in the plant that the drop-to-shock time is three minutes or less," he advises. "The AHA and other organizations, like

ACOEM [American College of Occupational and Environmental Medicine], recommend three to five minutes. That's fine, but I want to get a good feeling that I can be there in less than three." If you look at statistics, he says, each minute without a defibrillator can cause up to a 10% reduction in survivability.

A study of the plant layout will also give you a feel for how many AEDs you may need, says Zoch. "We try to have them in easily accessible locations, and most of the time they should be secure. From that point on you need to look at the demographics of the work site."

In other words, he points out, with an older population, a few workers may have had bypass surgery, in which case you want the AEDs to be closer to the area in which they work. On the other hand, if there are a number of 20-year-olds, that would not be necessary.

"An on-site nurse, if there is one, would be very valuable [in obtaining such information]," says Zoch. "The key issue is to have a champion there who really takes responsibility — they would be my key contact."

The champion also is critically important in developing an internal response system. "It's easy to say, 'Please activate 911,' but since the plant is now assuming first response status, you need an internal response system," says Zoch. "Some plants use overhead paging; others use beepers, phones with dedicated lines, or internal radio dispatch to save those precious seconds."

This process helps get businesses to think outside the box, he adds, while getting everyone on the same page.

No events to date

With a program as new as this one, it is too early to have sufficient data to measure success. And of course, when it comes to workers and cardiac arrest, no news is truly good news. "Thank goodness, we have not yet heard back from any businesses that they had an event," says Zoch.

Nevertheless, he believes his program stands out, both in terms of the key components enumerated above, and other strategies it has adopted. "When an event does occur, afterwards we will offer critical review and critical incident stress debriefing for the staff," Zoch notes. "It is catastrophic to have a fellow employee just fall over, and it is very important for employee morale to have this follow-up."

The program also has devised a creative way for

dealing with multisite situations. "One company has 10 plants in this country and in Canada," he notes. "The way we handled that issue was that we worked with the AHA, contacted this business, and found a champion in each city to act as medical director."

Speaking of locations, different states have different regulations regarding emergency services, so it's critical, notes Zoch, to know the legislative laws that oversee your area.

The bottom line, he says, is that "this is an area within our field that can have a tremendous impact on survivability," he asserts. "If it saves just one life, it is well worth all of the hard work and time it took to develop the program. If we approach it that way, it will lead to huge success, and we can make a dramatic impact."

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It takes a village for optimal RTW

Key personnel must get involved

At the Imperial (CA) Irrigation District (IID), any of the 1,200 employees who become injured or ill has access to an interactive return-to-work (RTW) program that has exceeded the expectations of the team who put it in place. (The IID is the largest irrigation district in the world, handling irrigation water and power.)

The program, which is outlined in five distinct phases, was instituted in 1993. **Marcy Feuerstein**, employee benefits services section supervisor, calls it interactive.

"What I mean is that we have a team put together that involves some very key players," she explains. "By being interactive, you get input not only from the employee, but from the treating doctor, from our disability specialist, and from the employee's supervisors — who are key."

If the injury or illness is work-related, a workers' comp claims management and disability consultant is also brought into the mix. "As supervisor of employee benefits, I provide input, as well as the manager of human resources, and the department manager of the employee," Feuerstein adds. "We

also keep the general manager up to date on all cases involved, and if there was an accident, we also share information with the supervisor of safety and the case's legal counsel."

Why a village is needed

She uses the phrase "It takes a village" to explain why input from so many different players is needed. "Our focus here is on what abilities the employee has that we can use to bring them back to work as soon as possible and when deemed medically appropriate by the treating doctor," Feuerstein notes. "We need everyone's input to do this."

When a disability exists for three or four months, Phase I is instituted, with an "initial interactive reasonable accommodation meeting." (**The phases are outlined on the right.**) "We sit around a big table and review the guidelines," says Feuerstein. "Whatever updated information we have been allowed to obtain is assembled prior to the meeting; whenever we don't have it, we ask the employee to share with us what happened medically with them."

Depending on the severity of the case, meetings, and communications continue along the five phases. "We work directly with the employer, the supervisor, and the provider," notes **Shauna Callens**, CPDM, human resources assistant disability management. "If at some point it looks like these absences are no longer temporary and we need to look at the larger picture of things, then we will initiate larger RTW meetings that involve the whole RTW team. If it is a temporary absence, it just involves the three main parties."

The larger roundtable discussions address reasonable accommodations, or reasonable job alternatives. "If needed, the consultant gets a release from the employer and sends a letter to the doctor to address the job description," says Feuerstein. "If the employee is returned to work with restrictions and limitations, we meet with the supervisor and maintain communications about any tasks the employee might be asked to do."

The members of the IID staff are very proactive, notes Callens. "Sometimes it will come out in a meet that the employee is not getting the appropriate care, such as seeing a specialist," she says. "We see that they do. It also helps that the managers are all on the same plane. If an employee is being treated very conservatively, they may make some suggestions about changes. As employers, we have even sent out for second opinions."

The five phases of IID's RTW program

- **Phase I:** When disability exists for three or four months and performance of the essential functions is impacted, an initial interactive reasonable accommodation meeting is held with the employee and department representatives to begin an exchange of information.
- **Phase II:** When disability prevents someone from resuming his or her usual job functions and no readily achievable, effective accommodations are available, the interactive process continues. (This phase lasts for up to 60 days; it includes evaluation of reassignment opportunities.)
- **Phase III:** When successful accommodations are identified and implemented through either job accommodation or reassignment to a current opening, a return-to-work monitoring period begins to assess the effectiveness of the accommodations and to troubleshoot any difficulties encountered. (This typically lasts 30-60 days.)
- **Phase IV:** When no readily achievable accommodations are available either through job accommodation or reassignment to a current opening, it may be necessary to conclude the employment relationship. This then involves legal review with IID's legal counsel and board of directors.
- **Phase V:** This is the final stage of the interactive, reasonable accommodation process. Either a final meeting is held to confirm the success of job accommodations accomplished or to review an employee's final status and available benefits as employment concludes. ■

"This is a totally integrated process," continues Callens. "We look at all of their benefits, the philosophy of the program and the culture of the organization."

New ideas generated

Because of this open communication process, says Feuerstein, a number of creative ideas have emerged that have helped employees optimize

their productivity. "The more people who are aware of and involved in this process, the more ideas come out of it," she says. "We've had employees come up with very creative ideas about tools and equipment, redesigning things, and even body mechanics. When we sit down together, there is sort of a feeding frenzy of ideas."

For example, the IID has a canal system of running water that requires a lot of pressure. "We have what we call a lifting dog, a sort of lever that requires you to use your back, shoulders, knees, and so on," says Feuerstein. "One employee created a wheel to do the same thing — and it doesn't blow out your back."

"It definitely improves the employee/employer relationship, creating a team effort," adds Callens. "The employee feels there's partnership in this, that they are part of the solutions and process. From an injured worker's standpoint, you know you are dealing with a progressive super and employer who are not looking to put you out to pasture. It's a win-win situation for all parties."

Study calls DM a 'leap of faith' to improvement

Limited evidence to support DM programs

While disease management programs have steadily gained popularity in recent years, there is a relative lack of evidence that they improve quality and save money, according to a report from the Washington, DC-based Center for Studying Health System Change (HSC).

"Although interest in targeted, condition-specific disease management programs is growing, evidence of their clinical and cost-effectiveness remains limited," wrote the authors of *Disease Management: A Leap of Faith to Lower-Cost, Higher-Quality Health Care*, which appeared in an October 2003 "Issue Brief" published by HSC.

"We did this study as part of a larger community tracking study to follow how local health care systems are changing, and what the implications of those changes are," says **Glen Mays**, PhD, senior health researcher with Mathematica Policy Research, consultant researcher for HSC, and one of the study's authors. "There has been growing interest in this type of intervention as it may rein in health care costs and improve quality and patient satisfaction."

HSC researchers visited 12 nationally

"It has also changed how supers and department managers look at the function of a job," Feuerstein observes. "They will stand back and look at not just one person, but at all the workers. For example, we use a lot of pickup trucks, and [this approach] led to replacing bench seats with bucket seats for all those who work out in the field, because they provide more back and leg support."

The program has helped put a lot of people back to work, she continues. "It probably has exceeded what we ever expected in the beginning in regards to reducing lost work days," she says.

Again, says Callens, this comes back to communications. "We let the employee know up front that our goal and basic intent is to get them well and back to work," she says.

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representative communities — randomly selected communities from all metropolitan areas of the United States that statistically represent average areas. The report was based on interviews with representatives of health plans, employers and providers.

Are employers acting on faith?

"I think overall that the most significant finding in the study is that compared to two years ago we have seen a marked increase in employer interest and involvement with disease management, despite the fact that employers indicate they do not have much evidence about its impact; the evidence is limited," says Mays.

Why, then, would employers invest in these programs? "In absolute terms the cost is not insignificant, but [it may be] in terms of the overall rate of increase of health care costs, if this is one of obvious potential solutions," he offers. "In addition, they are not that many alternatives [to save money] other than cutting back on benefits, which is not that attractive; disease management, on the other hand, is not a take-away."

The study goes on to note that employers have not really tried to systematically model the health or economic effects of these programs. "Most employers who now use disease management programs admit they haven't taken steps to look at

what the impact of these programs is," says Mays. "It's not from lack of interest. Many employers simply don't have the data; it may be captured by the health plan or the pharmacy benefit manager, who is not able to provide that data to them. In addition, for many of these programs, the rates of participation are still quite small, so you can't make reliable generalizations."

Evaluation is key

The report goes on to stress that ongoing evaluation should be a component of any disease management program you undertake. And perhaps, in response to the aforementioned lack of evidence, the industry is responding. "We're seeing an increased emphasis in the disease management industry on evaluating, and adopting standards, so purchasers can have some degree of reliability when presented with results," notes Mays. "This way, you can begin to compare apples to apples."

The evaluations can be done by a number of different entities, he says, including outside evaluators or individual health plans, a number of which now do their own internal evaluations. "One plan offered incentives to employers who agreed as a condition of their buying the program to provide data to allow assessment," he reports. "Clearly, health plans and other disease management vendors are seeing an increase in the marketplace in the demand for evidence to demonstrate value and impact."

So, if you are considering a disease management program for the first time, "first and foremost, it makes sense to gather as much information as you can up front on what is known about the program, the impact it has had both clinically and economically, the cost of care and satisfaction levels," Mays recommends.

Additionally, he notes, a number of employers have created ways to build in performance guarantees with vendors, to reduce some of the risk of buying a program that may be untested, or that has not demonstrated significant success to date. "For example, the guarantees can be structured around participation levels; if you don't enroll 80% of the workers with diabetes into your diabetes management program, there will be a penalty on the vendor," Mays explains. "This way, employers can reduce some of their risk."

[For more information, contact:

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New ACOEM guidelines have significant changes

Better communication emphasized

Many second editions of lengthy publications are little more than minor rewrites and an updating of a smattering of facts here and there, but that hardly is the case with the Arlington Heights, IL-based American College of Occupational and Environmental Medicine's (ACOEM) second edition of *Occupational Medicine Practice Guidelines* — a comprehensive guide that is the gold standard in effective treatment of workplace injuries and diseases.

In this edition, according to Lee Glass, MD, the chair of ACOEM's Practice Guidelines Committee and chief editor of the publication, more than one chapter has been completely rewritten, and several new elements have been added.

First published in 1997, the guidelines provide evidence-based, peer-reviewed recommendations for care, written by physicians and reviewed by a wide range of medical specialty organizations. The guidelines were developed to improve the efficiency and specificity of medical diagnosis of workplace-related injuries and diseases, enhance the effectiveness of treatment, and help occupational and environmental medicine physicians and other health care professionals manage growing caseloads.

The 516-page publication includes chapters on prevention of injuries and disease; assessment, medical examinations and diagnosis; the relationship of injury or disease to workplace circumstances; pain management and restoration of function; and more detailed analysis of specific conditions — ranging from back pain to carpal tunnel syndrome. The guidelines also include detailed information about mental health and stress-related illnesses, as well as a completely updated chapter on eye injuries in the workplace.

Fundamental goal unchanged

Despite these changes, says Glass, the publication's fundamental goals still are the same. "Our goal is to try to ensure that injured workers get

the highest quality medical care delivered as efficiently as possible, with the right decision made the first time," he asserts. "That was the intent of the first edition and of the second edition."

This does not negate the fact, however, that the new version is significantly different than the first. "We have completely rewritten the chapter on pain," notes Glass. "It now deals much more extensively with acute and chronic pain. There has been a lot of knowledge gained in the last number of years, and we've tried to incorporate that knowledge. Also, clearly in workers' comp, pain is a critically important component — often a driver of care." That's why, he says, *Pain, Suffering, and the Restoration of Function* is a major topic.

The chapter on eye injury was also totally rewritten. "It is very lengthy; it could even be a handbook all by itself for the occ-med physician on the treatment of industrial eye conditions," says Glass. The 58-page chapter "has in one place everything someone who's caring for a worker with an eye injury needs to know; it's an exceedingly valuable tool," he asserts.

New duration table data

There also is important new data in this edition, Glass observes. The first edition, for example, had disability duration tables. "They were based on consensus derived from groups of people who were knowledgeable about the expected duration of disability for each of a number of conditions," he explains. These tables have been revamped, but the major change, Glass explains, is additional information that comes from a CDC (Centers for Disease Control and Prevention) database.

"Every three years, the CDC oversees a national interview survey of a carefully, randomly selected segment of the population to look at health-related issues," notes Glass.

Called The National Health Interview Survey (NHIS), the data actually are available to the public. "Through a contractor, we obtained the data from the most recent survey and abstracted data related to disability for the conditions that are covered by the ACOEM guidelines, and excluded any data related to workers' comp injuries, so what we were looking at were the self-reported ACOEM guidelines conditions. We looked to see the median average length of the disability and included that data," Glass says.

What is the significance of this new information? "Disability duration data is what is thought to be reasonable to expect in workers' comp

absences," he says. "It turns out there can be a significant difference [between data for workers' comp and the CDC data]. For example, take knee injuries — cruciate ligament strain. The recommended [duration table] target was zero to one day with modified duty, and without, seven to 10 days. NHIS data was 14 days, and 19% of the people actually lost no time from work. For sciatica, the recommended target for disability duration without modified duty is seven to 14 days. The median NHIS was eight days. For regional low back pain, return to work without modification is seven to 10 days; NHIS is five days."

These new CDC data, Glass explains, provide "a bigger body of benchmarks. There often is a belief that the presence of a workers' comp injury affects the disability duration. This data are intended to allow people who care for injured workers to ask the question, if we do not have a workers' comp concern, what's the duration?"

Learning to communicate

Finally, he says, this second edition aims at helping members of the various professions involved with occ-health learn to communicate more effectively with each other. "We recognize that our audience is principally health care providers, but there are also others who have to communicate together in our complex legal-medical system," says Glass. "The various players often don't get training on how to communicate in someone else's language; that creates disruptions in efficiency of claims management and health care delivery. So, we have tried to provide a lot of different information to help folks understand the needs of parts of the system other than their own."

Two different professionals might have entirely different reactions to the same word, Glass offers. "If a physician hears the word *causation*, he thinks what you have to do is to demonstrate that an agent is in fact the infectious agent causing a patient illness. But a lawyer thinks about a Supreme Court ruling, which has nothing to do with the doctor's thinking. If each of these parties does not have some ability to understand the issue from the other's point of view, there will not be an optimal outcome for the injured worker/patient."

[Editor's note:

- The Occupational Medicine Practice Guidelines: Evaluation and Management of Common Health Problems and Functional Recovery in

Workers, 2nd Edition, is published by OEM Press in Beverly, MA. To order a print version, call OEM Press at (800) 533-8046, or visit their web site at www.oempress.com. The guidelines are \$175 for ACOEM members; \$199 for nonmembers.] ■

NEWS BRIEFS

ACOEM supports immigration reform

The American College of Occupational and Environmental Medicine (ACOEM) has voiced support for the immigration reform proposal announced today by President Bush in a White House speech, saying it is a positive step in putting undocumented farm workers on the path toward legal status.

"Recognition of these workers as part of the American work force will ensure that they receive the health and safety protections intended for all workers," said ACOEM president **John Holland, MD, MPH**.

However, ACOEM asked President Bush to go further, urging him to strongly support the Agricultural Job Opportunity, Benefits, and Security Act of 2003 (AgJOBS) currently pending in the Congress. If enacted, the legislation (S.1645 and H.R. 314) would provide agricultural employers with a stable, legal labor supply by offering many agricultural workers who lack authorized immigration status the chance to become legal immigrants.

To qualify, the workers would have to demonstrate that they have been working in the U.S. in agriculture during the past 18 months and meet other immigration law and homeland security requirements. Upon becoming temporary residents, they would be required to work at least 360 days over a three- to six-year period in agriculture in the United States to gain permanent immigration

status. The legislation also would revise the H-2A temporary foreign agricultural worker program. ▼

OSHA delays enforcement of TB standard to July

The Occupational Safety and Health Administration (OSHA) will delay until July 1, 2004, enforcement of the general industry respiratory standard for health care providers and other employers required to protect workers from potential exposure to tuberculosis.

Employers required to protect against TB were subject to a separate standard while a 1997 proposed rule for TB protection was being considered; however, OSHA recently decided to withdraw its proposed rule and to begin applying the general industry standard.

The delay will allow affected employers six months to make the changes necessary to comply with the general industry standard, which includes more stringent requirements, including mandatory annual fit-testing. The OSHA announcement can be found at www.osha.gov/ under "OSHA News." ▼

CE instructions

Nurses and other professionals participate in this continuing education program by reading the issue, using the provided references for further research, and studying the questions at the end of the issue.

Participants should select what they believe to be the correct answers, then refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material.

After completing this semester's activity, you must complete the evaluation form provided in the **June** issue and return it in the reply envelope provided in order to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

COMING IN FUTURE MONTHS

■ Advances in genetic research: What's the impact on occ-health?

■ Incorporating *drum circles* into wellness presentations

■ Non-occ return-to-work programs — a different animal?

■ All exercise is not created equal, according to new study

■ Workers' comp fraud — how to spot it, how to deal with it

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Survey finds vacancies, turnover

A survey of hospital and other health care recruiters by Bernard Hodes Group found average vacancy rates of 13.9% for registered nurses. According to the on-line survey of 151 recruiters conducted from April 22 to Oct. 1, 2003.

Other reported nursing and allied health vacancies averaged 15.7% for occupational therapists, 14.6% for physical therapists, 14.4% for speech language therapists, and 14.2% for respiratory therapists. RNs had the highest turnover rate at 15.5%, followed by occupational therapists (14.9%), and respiratory therapists (14.2%). About 80% of survey respondents worked in acute care facilities. The complete survey can be found at www.hodes.com/hcrecruiting/. ▼

AHIMA releases EHR standards

The American Health Information Management Association has released best-practice standards for electronic health records, intended to provide practical guidance in areas that play an integral role in the transition from paper to electronic health records.

The standards include information on implementing electronic signatures, core data sets for the physician practice electronic health record, and speech recognition in the electronic health record. Six guidance reports are now available at www.ahima.org/infocenter/ehim. ■

CE questions

For further information, refer to the CE instructions box. This procedure has proven to be an effective tool for adult learners. If you have any questions about the testing method, please contact customer service at (800) 688-2421.

The CE objectives for *Occupational Health Management* are to help nurses and other occupational health professionals to:

- **develop** employee wellness and prevention programs to improve employee health and attendance;
- **implement** ergonomics and workplace safety programs to reduce and prevent employee injuries;
- **develop** effective return-to-work and stay-at-work programs;
- **identify** employee health trends and issues;
- **comply** with OSHA and other federal regulations regarding employee health and safety.

9. There is a substantial body of scientific evidence that shows disease management programs save money and improve quality of care.
 - A. True
 - B. False
10. The second edition of ACOEM's *Occupational Medicine Practice Guidelines* includes completely new or rewritten information on:
 - A. pain
 - B. eye injuries
 - C. disability duration for nonworkers' comp injuries
 - D. all of the above
11. Each minute without a defibrillator can decrease survivability by up to:
 - A. 5%
 - B. 10%
 - C. 15%
 - D. 20%
12. Which of the following is *not* considered to be a telehealth application?
 - A. Marker sets
 - B. Video conferencing
 - C. Telephone answering machines
 - D. Robotic surgery

Answers: 9-B; 10-D; 11-B; 12-C.