

# Occupational Health Management™

*A monthly advisory for occupational health programs*

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## IN THIS ISSUE

### **Take-home exposures: How big an issue for occ-med professionals?**

It may not grab as many headlines as other occ-health issues, but take-home exposures can pose a real threat to people who share a household with workers in at-risk industries. Substances such as asbestos, mercury, lead, beryllium, and a number of pesticides can easily be brought home on clothes or tools. The good news is that simple precautions such as having workers shower or change clothes before leaving work can significantly lower these risks. . . . . cover

### **Latex-sensitivity screening yields big savings**

A latex-sensitivity screening program at the University of Maryland School of Medicine in Baltimore has not only helped identify latex-sensitive health care workers but has yielded annual savings of at least \$80,000. By enabling the school to accommodate these employees, often through the use of synthetic gloves, a significant number of lost workdays were saved, as well as projected workers' compensation costs. Prior to the screening program and a shift to nonlatex gloves, latex-sensitive workers missed an average of 50 workdays per year . . . 101

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## Take-home exposures can pose threat outside work

*Exposed workers can put families at risk*

In the world of occupational health, the phrase "taking your work home with you" can take on a different and sometimes frightening meaning. Workers who have been exposed to toxic substances can bring them home on their clothes, their skin, or even their tools, and unwittingly place their families at risk for a wide variety of illnesses.

Just how large a threat this represents remains unclear.

"Some of these risks are well documented — specifically, with asbestos, for example," offers **Grace Paranzino**, MS, RN, CHES, FAAOHN, president of the Philadelphia/Pennsylvania Association of Occupational Health Nurses and assistant professor at Drexel University College of Medicine in Philadelphia. "A worker may not come down with related lung disease, but someone else in the household may. That could be because the household member may not know what to do to prevent exposure."

"The concern about take-home exposures is a meaningful and important one," says **Jonathan Borak**, MD, DABT, associate clinical professor of medicine and epidemiology at Yale University in New Haven, CT, director of the Yale University Inter-Disciplinary Risk Assessment Forum, and president of a consulting firm that bears his name. "It is one of the means of exposure that is underappreciated by the general population."

Interestingly, the chair of the National Institute for Occupational Safety and Health (NIOSH)-sponsored Workers' Family Protection Task Force, whose recently released report has helped renew interest in this subject, urges a balanced approach. "We don't

*Continued from cover page*

**Benefits of back-strengthening programs can last for years**

Eight years after completing a back-strengthening program, a group of postmenopausal women still had a significantly lower risk of fracture than the control group that did not participate in the program. This surprising result has led the lead researcher in The Mayo Clinic study to conclude that women of any age would benefit from such a program, including a reduced risk of work-related injury . . . . . 103

**Bring scanners in-house to boost revenue, quality**

Southern California Orthopaedic Institute Medical Group in Van Nuys has gone to great expense to acquire an MRI unit and an extremity scanner and place them within its facilities so such referrals can be handled in-house. Why did it go this route? First, the high volume of referrals the group has offered an opportunity to bolster revenues; and based on current data, the scanners should pay for themselves within six months. What's more, say the staff, having greater control over who performs the scans ensures a higher quality of care . . . . . 104

**MSD definition still stumps OSHA**

The U.S. Occupational Safety and Health Administration (OSHA) has delayed separate record keeping of work-related musculoskeletal disorders (MSDs) for another year while the agency considers the definition of MSDs. OSHA is asking for comment on whether the separate columns for MSDs and hearing loss are necessary and, if so, how MSDs should be defined. In fact, the agency says in its *Federal Register* notice, MSDs may not have a single definition . . . . . 106

**Texas workers' comp reimbursements slashed**

The Texas Medical Association (TMA) and the Texas AFL-CIO have joined forces in a joint suit aimed at blocking implementation of new guidelines adopted April 25, 2002, by the Texas Workers' Compensation Commission. According to these groups, the guidelines, which in some cases slash reimbursements by 17%-41% for surgeons, radiologists, pathologists, internists, and physical medicine specialists who treat injured workers, will make it difficult, if not impossible, to obtain quality medical care . . . . . 107

**COMING IN FUTURE ISSUES**

- Thousands still unaware they have HIV: Are your workers among them?
- OSHA to assess ergonomic, infection risks at nursing facilities
- More companies offering health promotion/management programs to help contain health care costs
- Georgia health care group shares its strategies for workplace excellence
- On-site pharmacy offers employees personalized care, cost savings

want people feeling there is a smoldering epidemic — the exact extent of the problem nowadays is not known," asserts **Harvey Checkoway**, PhD, a professor in the department of environmental health at the University of Washington in Seattle.

The task force, put together in 1994-95, was asked to review a NIOSH document on take-home exposures, comment on it, critique it and come up with recommendations. Its findings were published in July on the NIOSH web site ([www.cdc.gov/niosh](http://www.cdc.gov/niosh)) under the title, "Protecting Workers' Families." (The NIOSH web site also includes a listing of industries that are more prone to take-home exposures.)

"There's no evidence of people getting sick and dying left and right," Checkoway continues. "We ended our report with a question, not a conclusion: What else is being brought home nowadays, and how much of it?"

**An occ-med concern**

Experts agree that seeking the answer to that question is an important concern for occupational health professionals — for a number of reasons.

"Certainly, preventing disease is the right thing to do," says Checkoway. "There are also liability issues. Besides that, today's kids are tomorrow's next generation of workers. Many large companies have facilities all over the world, and things we think are under control here may not be so well controlled elsewhere."

"Over and beyond the moral and ethical issues about trying to do good is the fact that illness in a worker's family impacts the worker," adds Borak. "Occupational health professionals should see the worker as a person — and not only in the workplace."

In addition, Borak notes, most workers are the source of their family's health insurance, so it has an impact both on them and on their employers.

Third, he notes, "ACOEM [the American College of Occupational and Environmental Medicine] has extended itself beyond the fence line of the plant. Take-home contamination is one of those areas where occupational exposure becomes environmental exposure by going home with the worker."

There are a large number of potential sources for take-home exposures. The NIOSH report cited asbestos, lead, and beryllium as among the most prominent.

"We kept talking about those three as classic examples, but we're not sure these are as much of current-day interest or pose take-home exposures,"

## Key strategies for combating take-home exposures

The following summary of strategies for minimizing take-home exposures was provided by **Grace Paranzino**, MS, RN, CHES, FAAOHN, president of the Philadelphia/Pennsylvania Association of Occupational Health Nurses:

- **Medical surveillance of employees to identify exposures and specific take-home contaminants.** Take inventories of specific departments to better identify what occupational health risks workers have and provide them with the proper protective equipment. Remember: It is the company's responsibility to supply the equipment, but it's up to the workers to wear it. Management has a visible role in trying to enforce compliance — this includes both supervisors and the health and safety team.
- **Address the hierarchy of controls.** When

health care providers communicate this hierarchy in the workplace, it helps reduce and eliminate exposures.

- **Institute appropriate education programs.** This will help to inform and empower workers about potential exposures and how to protect themselves.

- **Create an interdisciplinary response team.** This team should include industrial hygienists, nurses, health educators, and physicians.

- **Give the issue the attention it deserves:** Health care providers, including occupational health nurses, need to understand and recognize the significance of take-home contamination.

- **Exposure history.** Companies must conduct comprehensive exposure histories to recognize and address the potential for take-home contamination, and also to inform the worker that family members or others who live in their household may become exposed. ■

notes Checkoway.

Certainly, environmental regulations have limited the use of lead, asbestos, and certain pesticides, but that doesn't mean the danger has been totally eliminated, Checkoway notes. "Are some of the old bad actors still bad actors? Jobs involving asbestos are pretty uncommon, but abatement workers handle it, for example, when it episodically shows up in schools," says Checkoway. "And lead-based paints are used by radiator repair people, bridge painters, some welders, lead smelters, and electricians."

"Personally, I think it's [still] true because we've been able to document exposures," says Paranzino. "Sheet metal workers, construction workers, even people who do home remodeling can be exposed to asbestos. Lead is used in battery reclamation centers, as well as by construction workers and bridge workers."

"I'd be more inclined to say those three substances may be the most salient or memorable," notes Borak. "But asbestos is much more important and illustrative. There are clear cases of spouses of asbestos workers developing mesothelioma [a form of lung cancer], probably because of fibers brought home on a working spouse's clothes, perhaps even exposing her as she cleans them."

Paranzino's father died of mesothelioma. "Asbestos has a long latency period — 20 years or more," she says. "My dad worked for 40 years

in a naval ship yard as a tool and dye maker. When he was diagnosed in his 70s, we were shocked."

Paranzino conducted an exposure history, not only to determine how her father was exposed, but how other family members might have been. "He didn't change clothes at work; he sat at the kitchen table on an upholstered chair, and we could surmise he still had fibers on his clothing," she says.

"My mom didn't separate his clothing from the others," she continues, noting possible exposure of others. "I'm 44. When he was exposed, I was a kid. Did he hold me when he came home from work? Ultimately, this issue impacts everyone."

Beryllium, says Borak, is not the threat it once was. A very strong, lightweight metal, it has been used as an alloy to harden many metals and is very important as a neutron mediator and component in control and trigger mechanisms of nuclear weapons. But after links were found to lung disease, it has come under tight federal regulation.

"It used to cause an acute lung disease, pneumonitis. But that wouldn't happen now unless there's a catastrophic event; the current occupational exposure levels are too low," Borak says. "Only about 3% to 5% of the population becomes sensitized."

There are, however, other substances that remain of concern. "There was a study of people

## Handy pocket card offers guide for exposure history

A pocket card developed by the Atlanta-based Centers for Disease Control and Prevention's Agency for Toxic Substances and Disease Registry (ATSDR) employs a mnemonic device to help occupational health physicians and nurses remember the key steps to a thorough exposure history. The steps spell out the words "I PREPARE" in a vertical design. They stand for the following key issues and groups of questions you should ask your workers:

- **I — Investigate Potential Exposures:** Have you ever felt sick after coming in contact with a chemical, pesticide, or other substance? Do you have any symptoms that improve when you are away from your home or work?
- **P — Present Work:** Are you exposed to solvents, dusts, fumes, radiation, loud noise, pesticides or other chemicals? Do you know where to find Material Data Safety Sheets on chemicals that you work with? Do you wear personal protective equipment? Are work clothes worn home? Do co-workers have similar problems?
- **R — Residence:** When was your residence built? What type of heating do you have? Have you recently remodeled your home? What chemicals are stored on your property? Where does your drinking water come from?
- **E — Environmental Concerns:** Are there

environmental concerns in your neighborhood (i.e., air, water, soil?) What types of industries or farms are near your home? Do you live near a hazardous waste site or landfill?

- **P — Past Work:** What are your past work experiences? What is the longest job held? Have you ever been in the military, worked on a farm, or done seasonal work?
- **A — Activities:** What activities and hobbies do you and your family engage in? Do you burn, solder, or melt any products? Do you garden, fish, or hunt? Do you eat what you catch or grow? Do you use pesticides? Do you engage in any alternative healing or cultural practices?
- **R — Referrals and Resources:** Use these key referrals and resources: Agency for Toxic Substances & Disease Registry ([www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)); Association for Occupational & Environmental Clinics ([www.aoc.org](http://www.aoc.org)); Environmental Protection Agency ([www.epa.gov](http://www.epa.gov)); Material Safety Data Sheets ([www.hazard.com/msds](http://www.hazard.com/msds)); Occupational Safety & Health Administration ([www.osha.gov](http://www.osha.gov)); local health department, environmental agency, poison control center.
- **E — Educate:** Are materials available to educate the patient? Are alternatives available to minimize the risk of exposure? Have prevention strategies been discussed? What is the plan for follow-up?

Source: Paranzino GK, Butterfield P, Becker J, et al. *PREPARE: Environmental Exposure History Mnemonic*. Atlanta: Agency for Toxic Substances and Disease Registry; 2000.

in a Vermont thermometer factory," he notes. "The kids had mercury poisoning due to a working parent bringing it home. Mercury, which vaporizes slowly, hovers close to ground level, so children who crawl on the floor are at greater risk."

Borak also was co-author of an article published in the April 2002 *Journal of Occupational and Environmental Medicine* detailing exposure to creosote. "It shows the dermal route is more important than the inhalation route," he explains.

"There's one other area that is enormously important and just breaking into prominence: pesticides," Borak observes. Migrant farm workers, he points out, are an underserved population when it comes to occupational health. "They have found very high levels of pesticide residue in the urine of their children in Oregon and Washington [state]," he says. "Parents work in the field and bring it home with them."

Checkoway notes that some substances may

not be as closely tracked as others. "Radiation and biological exposures are outside of NIOSH's purview," he observes.

### **Prevention not rocket science**

While some of the substances endangering workers are exotic and rare, proper procedures for limiting take-home exposures can be surprisingly simple.

"A lot of this can be prevented by good work practices, use of protective equipment, disposable equipment, having workers wash and shower before going home, not bringing tools home — pretty standard common sense," says Checkoway.

Borak agrees that changing clothes and showering at the end of a shift "substantially lowers the level of exposure."

Ironically, he continues, this relatively under-recognized concern is amenable to some of the least

expensive interventions. "We may be talking about disposable, impermeable — but not airtight — jumpsuits, or wearing a cover, or gloves," he says.

Installing showers — even portable canvas showers for agricultural workers — is relatively inexpensive, says Borak. There also are certain soaps that are especially effective, and his consulting firm recently prepared a proposal that includes fingernail brushes. "The cost is akin to that of providing clean sand for cigarette trays," he notes.

The cost of *not* taking such steps can be considerable, he adds. "A worker can't sue you, but his wife can," he explains. "And the [employer's] liability exposure for a next of kin is much greater."

Effective health and safety programs in which workers are made aware of potential take-home exposures are very important, adds Paranzino. "Do the workers know what those potential exposures are? Are they provided with appropriate personal protective equipment? If so, do they remove it before they take it home or get on a bus?" **(For a summary of key strategies to prevent take-home exposures, see article on p. 99.)**

One of the other major issues in fighting take-home exposures is a complete exposure history, says Paranzino. "This is generally not done in the workplace — even by occupational health professionals," she asserts.

"Most exposure histories that are done are reactive and limited," she continues. "It's always a response to something. Therefore, the company is always worried about exposures on that particular job; but for the most part, they don't ask about past work practices and past exposures." **(For a guide on how to perform a complete and thorough exposure history, see box, p. 100.)**

Finally, she says, it's important to involve occupational health nurses in this process, "Because they play an integral role in facilitating the safety and health of workers." (For further information, visit the American Association of Occupational Health Nurses web site, [www.aohn.org](http://www.aohn.org).)

Borak recommends these bottom-line steps to minimize the likelihood of take-home exposures: "Find out systematically what exposures are occurring and what potential there is for their being brought home," he advises. "What protective measures are in place? Are they being used, and are they effective?"

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## Screening program helps ID latex-sensitive workers

*Early detection can save money, lost productivity*

A screening program designed to identify latex-sensitive health care workers at the University of Maryland School of Medicine in Baltimore has realized annual savings of at least \$80,000 by enabling the school to accommodate these employees, often through the use of synthetic gloves.

Early identification of such workers is critical, says **Mary Beth Bollinger, DO**, director of allergy and assistant professor at the medical school. The fact that the facility had already decided to transition from latex gloves did not lessen the need for screening, she says.

"Latex is something we are all exposed to every single day, and a lot of people have allergies," says Bollinger, noting that such allergies can significantly impact job performance.

"We had six workers identified in 1997 who had significant allergies — they missed an average of 50 days of work before we could get them back into the workplace. Some had to work in another area of the hospital, and two have such sensitivity that they developed occupational asthma."

Sensitive individuals often report skin reactions, such as rashes or itching, or even systemic hives or rash, says Bollinger. Upper respiratory problems such as sneezing, itchy noses, or lower respiratory problems such as coughing, chest tightness, wheezing, or shortness of breath also are seen.

In addition, she observes, latex-sensitive workers can develop serious anxiety about entering certain areas of the hospital. "We wanted our employees to work in a safe environment," Bollinger says, underscoring the motivation for both the transition and the screening. "If you continue to ignore even mild symptoms, in the next month or year, a person

## Four-phase, five-year NRL glove plan

The following is an outline of the University of Maryland School of Medicine plan to eliminate latex gloves over a five-year period:

- **Phase I:** Provided nitrile synthetic nonsterile examination gloves to natural rubber latex (NRL)-sensitized employees and converted to powder-free, low-protein NRL examination gloves including gloves in prepackaged suction kits. *[Editor's note: Latex gloves are often manufactured with a powdered cornstarch substance inside them. This acts as a vector for the allergen and can be taken into the lungs and cause significant symptoms. Eliminating the powder could decrease exposure and the likelihood of employees becoming sensitized.]* Phase I was completed in September 1999.
- **Phase II:** Converted to powder-free and non-NRL surgical gloves. Completed in August 2001.
- **Phase III:** Conversion to all synthetic examination gloves. Targeted for 2002.
- **Phase IV:** Conversion to all synthetic surgical gloves. Completion anticipated in 2003. ■

could have severe symptoms.”

Some health care workers become so symptomatic, she notes, that they have had to leave the profession altogether.

### Putting things in motion

Following the identification of the six aforementioned cases, a multidisciplinary task force was formed that included the departments of allergy, occupational medicine, human resources, employee health, risk management, administration, patient support services, materials management and nursing.

They developed a four-phase, five-year plan to eliminate natural rubber latex (NRL) gloves (see the box, above).

The screening program was developed by the employee health department, and in February 1998 was made mandatory not only for all new incoming employees but for existing employees who wished to transfer into patient care services. It also was made available to all employees who volunteered for NRL allergy evaluation.

A formal study was conducted over a 15-month period from April 1998 to July 1999. The screening involved both a clinical history

questionnaire and a blood test for the NRL-specific IgE antibody.

A total of 1,795 employees were screened. Of that group, 8%, or 144, were NRL-specific IgE antibody-positive by blood test and/or skin test. Of this group, 57.3% reported symptoms with powdered NRL glove exposure. Most of the NRL-sensitized workers were given synthetic gloves and were able to continue working in the same positions.<sup>1</sup>

The financial results also were positive. “When we first did our cost projections of converting to powder-free examination gloves, we projected it would cost \$100,000 a year on a million-dollar glove budget,” notes Bollinger. “This would be offset by what we would have paid in workers’ comp. When we did make the conversion, the materials management department realized that people all over the hospital had been using many different glove manufacturers. By limiting our purchases to just one manufacturer, we actually saved \$80,000 per year.”

Once you’ve decided to go latex-free, says Bollinger, your work has only begun. There are a number of products on the market from which to choose.

“We used scoring sheets, filled out by representatives from nursing, physicians, and materials management,” she recalls. The systematic glove evaluation and selection process involved criteria such as ease of putting and taking the gloves on and off, dexterity (staff tried to pick up tiny metal objects while wearing the gloves), drawing blood, slippage, smell, and even color. Then the committee got together and made the final decision based on the surveys. The nitrile gloves were selected, not only because of staff reaction, but because nitrile has in some cases been shown to provide an even more effective barrier against bloodborne pathogens than latex, which is not true of some vinyl products.

The task force initially wanted to convert immediately, but there were not enough gloves available in adequate supply and at reasonable cost, says Bollinger.

This actually worked in their favor. “During the transition process, they came up with better gloves with textured fingertips,” she notes. “We also felt we had more time to educate our employees by doing it in a staged process. Besides, whenever you make a change in health care, there’s going to be resistance.”

The toughest employees to convince were the surgical staff, who are very particular about what they use. They also had to be educated about the glove, because it’s not as stretchy as latex, and if

you try to shove your hand through it, you will poke a hole in it.

Finally, says Bollinger, a total conversion away from latex may not be financially or logistically feasible in your facility, so compromises may have to be made. On the other side of the spectrum, a place like The Mayo Clinic can even test different lots of gloves, and based on the amounts of antigen-emitted assign them to the most appropriate workers.

"Mayo offers multiple choice because they couldn't do a complete transition," Bollinger explains. "Our compromise was not to go totally to nitrile at first, but to transition gradually. The ultimate plan today is to switch everyone at once, but not too many people have been successful at doing that."

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## Latex threat extends beyond gloves, health care

While examination and surgical gloves are probably the greatest potential source of latex contamination for health care workers, other materials can also affect latex-sensitive workers. According to BSN-JOBST, of Charlotte, NC, these include elastic in clothing, surgical masks, and medical packaging.

And health care professionals are far from the only employee population that needs to be concerned about latex sensitivity. BSN-JOBST, which manufactures latex-free products and packaging, including Coverlet adhesive dressings, notes that other professionals with increased exposure to latex products include housekeepers, hairdressers, food servers, and workers in industries that manufacture latex. Other products that contain latex include erasers, diaphragms, rubber bands, condoms, balloons and pacifiers, says the manufacturer.

If you are concerned about latex exposure in

your workplace, here are some steps BSN-JOBST recommends:

- Know which products are likely to contain latex.
- Wherever possible, substitute nonlatex products.
- Before exposing others to latex products, inquire about any potential latex sensitivities.
- When latex gloves are necessary (i.e., when handling infectious materials), use powder-free gloves, avoid oil-based hand creams or lotions, and wash hands thoroughly after removing gloves.
- Frequently clean areas that are exposed to latex dust.
- Frequently change ventilation filters and vacuum bags used in areas that contain latex products.
- Learn to recognize the symptoms of latex allergy.

Additional sources of information on latex allergies include the National Latex Allergy Network (ELAST INC.), <http://latex-allergy.org>, and the American Latex Allergy Association (A.L.E.R.T. Inc.), <http://www.latexallergyresources.org>. BSN-JOBST can be reached at (704) 554-9933, or on the Internet at [www.coverlet.com](http://www.coverlet.com). ■

## Back strengthening can help reduce fractures

*Program remains effective years after completion*

A recent study conducted by The Mayo Clinic in Rochester, MN, has shown that a back-strengthening program not only can provide long-lasting protection against spinal fractures in women at risk for osteoporosis, but also that women who participated in the program retained a significant advantage in back strength even eight years after the program ended.<sup>1</sup>

Even though the program involved postmenopausal women who were between the ages of 48 and 65 when the study began, the implications of its findings may be much broader.

When asked if back strengthening for even younger women would help prevent injuries later in life, **Mehrsheed Sinaki, MD**, lead author of the study, replied: "I should say yes. Just from this study, we can say that having a stronger back helps it to be less injured at whatever age."

It is very important for working women to have strong backs, she continues. "Strengthening those

back muscles is very important to prevent injuries at the job," she says. "Being de-conditioned contributes to work-related injuries, even falls."

Sinaki notes that 50% of white women (the group studied) experience a decrease in bone mass as they age, and one in four can develop fractures. "Nonwhites [have fewer fractures] because they have such good bone density, but not as many studies have been done," she adds.

### **Results are impressive**

The study involved 50 postmenopausal women, 27 of whom performed "progressive, resistive back-strengthening exercises" for a period of two years. The other 23 served as the control group. Baseline measurements were taken for bone mineral density, back-extensor strength, biochemical marker values, level of physical activity, and spine radiographs.

The difference between the two groups in mean back extensor strength and bone mineral density, which favored the exercise group after completion of the program, were still statistically significant 10 years after the program was completed. The relative risk for compression fracture was 2.7 times greater in the control group than in the back exercise group.

The control group actually increased the amount of exercise it had during the study period as well, making the results even more impressive. "The control group didn't want to be left behind, so they did more exercise," Sinaki explains. "However, they didn't necessarily do back exercises."

"To our knowledge," the authors wrote, "This is the first study reported in the literature demonstrating the long-term effects of strong back muscles on the reduction of vertebral fractures in estrogen-deficient women."

Both groups experienced similar bone loss during the follow-up period. So why did the exercise group have a lower risk of fractures? "Because their muscles were stronger," Sinaki explains. "Stronger muscles will protect the bones even with bone loss."

### **Key to a good program**

Clearly there is not just a single exercise program that will help build back strength, but there are key elements, she says.

"You need to strengthen the back extensor muscles," she says, "And of course, the tummy,

but those extensor muscles are major. There are some machines in the gym that you can use to push against those muscles, and isometrics are not bad, either."

At what age can women begin to show the effects of osteoporosis, to the point where it might threaten their health and productivity? "It's really hard to say, but in general when they experience perimenopause, sometime from 45 on, and usually by 48-52," says Sinaki. "That's when you can begin to lose bone mass, and the age at which you need to be watched, especially if you do a lot of heavy lifting."

The biggest challenge in implementing a successful back-strengthening program, she says, is compliance. "I have tried different things [to increase compliance], but for me what works best is to show the employees how interested you are in their health, and to tell them the reasons that these exercises are so important. You should also tell them how much more likely they are to be injured if they're not in good health."

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1. Sinaki M, Itoi E, Wahner HW, et al. Stronger back muscles reduce the incidence of vertebral fractures: A prospective 10-year follow-up of postmenopausal women. *Bone* 2002; 30:836-841. ■

## **In-house equipment can boost revenues, quality**

*Greater control improves care, says occ-med group*

Complex medical equipment such as MRI units and extremity scanners don't come cheap, but in the long run, purchasing such equipment and providing these services in your own facility can help to significantly improve your bottom line. What's more, the increased control you have over these processes also will improve quality of care.

That's the dual hypothesis that led officials at Southern California Orthopaedic Institute Medical Group (SCOI) in Van Nuys to bring such services in-house, says **Cindy Lesonsky, CPA**, who is CEO

and CFO of SCOI. "With 27 physicians, we have lots of referrals [for scans]," she explains.

"We just signed doctor No. 27, so there are 27 physicians who potentially will feed into the MRI referral sources as well as the physical therapy practices," adds **Judy Colby**, RN, COHN, workers' compensation liaison at SCOI, which includes a headquarters and eight satellite facilities, with a complete PT [physical therapy] department and a wholly owned surgicenter in its headquarters. The staff include four physiatrists (nonsurgeons involved in physical rehab) as well as orthopedic surgeons.

The new equipment also gives SCOI greater creativity for referrals, says Colby. "LA has a very mobile population," she notes. "It's not uncommon for someone to start out as a Bakersfield patient, but because of the types of services they need, they could end up down in Van Nuys — which is 90 miles south of Bakersfield — for their surgery. If you have to choose between that and waiting two weeks for an appointment in Bakersfield, you may opt for a different doctor — and for the [trek] — in order to be seen earlier. The bottom line here is that we have more opportunities to enhance revenues."

### ***Two machines to start***

The investment has begun with two machines. The first, a 1.5 Tesla MRI unit, was delivered in April 2002. It was installed after completion of new construction on space within SCOI's 92,000-square-foot headquarters that already had been earmarked for growth.

An extremity scanner, which Lesonsky hopes will be installed by the end of summer, was purchased for one of the larger satellite offices. Shaped like an oven, it allows for the scanning of body parts such as feet and knees. "It's similar to the MRI, and gives excellent quality," says Lesonsky.

The cost, however, is only 40%-50% of an MRI, and requirements for the room are not as severe. "It doesn't require RG shielding, and it can go on the second floor because it's not as heavy as the MRI," Lesonsky explains. She adds that the physicians are very excited about the extremity scanner, and based on its anticipated success, hope to consider using additional scanners in some of the larger satellite offices.

In evaluating this strategy, quality is at least as important as revenue enhancement, says Lesonsky. "One thing I'm really proud of is that our physicians really put quality of care first," she says. "They told us that if the quality was not acceptable,

we shouldn't do it. It leads to problems down the road if the scans are not good and you make a poor diagnosis, or if you take people to surgery who don't need it or you perform the wrong surgery."

Lesonsky says that in ancillary services, greater control leads to greater quality. "You can contract with a radiologist you like and who does good reads, or with someone who is particularly good on spines," she observes. "You also have more control in terms of techs [when you bring services in-house]."

If you send patients out and you believe they are not receiving excellent care, "you can complain, but that's it," Lesonsky notes. "This way, it's your place. You not only have control over the people, but they feel they are more a part of things and they're happier."

In-house PT services also offer another opportunity for improved quality, notes Colby. "Several years ago, there was some state legislation that led all medical providers to believe it was illegal to own and operate your own PT practices because of the self-referral issue," she recalls. "That whole scenario has now relaxed. We had contracted out physical therapy and were increasingly dissatisfied with the quality and elected to bring it back in-house two years ago. The physicians have been much happier since that change, and as a result, we have also begun to offer it in some satellite facilities."

### ***Not for everybody***

From a financial standpoint, the new investment seems to be paying off, says Lesonsky. "We've been doing 14-15 scans per day," she notes.

How soon does she expect to recoup her investment? "Usually you lease this type of equipment [due to cost], although we're buying the extremity scanner," she says. "We would envision being in the black within six months in both cases."

Nevertheless, she notes, bringing such equipment in-house is not necessarily going to be as profitable for all occ-med practices. "It really depends on the practice," she explains. "We have three spine physicians. If we did not have these scanners in our main office, we'd lose all that spine business. For us, spine referrals are clearly very important. But if you had a sports medicine practice and you didn't do a lot of spine work, you might not lose very much business [by not having in-house equipment]."

You've really got to study the numbers, she continues. "If you don't have an MRI now, see what you're referring out. If it's 100 patients a

month, and you'd get \$1 for each scan you did in-house, if the associated expenses of the equipment are less than \$100 a month, it probably makes sense to do it."

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## OSHA delays new MSD record keeping — again

*Should MSDs have more than one definition?*

Separate reporting of work-related musculoskeletal disorders (MSDs) has been delayed at least another year while the U.S. Occupational Safety and Health Administration decides how those injuries should be defined — and whether the record keeping should be changed at all.

In a question debated in numerous ergonomics hearings and forums, OSHA once again is asking, "What is an MSD?" Is it an injury caused by a single trauma, such as a back injury that occurs when lifting a patient? Is it extremity pain that develops over time after cumulative trauma? Can one definition cover both?

OSHA's statements in the *Federal Register* notice hint that the agency may reject a single definition of MSDs and drop the idea for a special column to track them. In fact, that position corresponds with OSHA's "comprehensive approach" to ergonomics, which avoids broad definitions and focuses on industry-specific, voluntary guidelines.

"OSHA found that no single definition of 'ergonomic injury' was appropriate for all contexts," the agency said in the notice.<sup>1</sup> "The agency stated that it would work closely with stakeholders to develop definitions for MSDs as part of its overall effort to develop industry-or-task specific guidance materials."

Worker advocates accused OSHA of trying to minimize the problem of MSDs by changing the definition. "Labor Secretary [Elaine] Chao is going to have the most effective MSD program the country has ever seen by redefining the problem away," says **Bill Borwegen**, MPH, occupational health and safety director of the Service

Employees International Union (SEIU). "It's tragic, really. Now we're not going to have the information and ammunition to spend the resources to make the problem really go away rather than to make it go away artificially."

"We've been dismayed by that move to not count MSDs in a straightforward way," says **Karen Worthington**, MS, RN, COHN-S, occupational safety and health specialist for the American Nurses Association in Washington, DC. "It continues to feel like delay tactics and tactics that will undermine finding the problem."

In the same *Federal Register* notice, OSHA released a new rule for the recording of hearing loss that focuses on overall hearing deficiency. The MSD and hearing-loss provisions were delayed when OSHA released its final record-keeping standard that became effective this year. The new record-keeping rule clarified what is meant by "first aid only" and require the reporting of all needlesticks.

The record-keeping rule provided for separate columns to collect information on MSDs and work-related hearing loss to make those injuries easier to track. OSHA still is unsure if those additional columns are necessary and is asking for comment. Employers would be required to report the injuries but would not need to identify them separately as MSDs and hearing loss cases.

"If the agency decides there's no need for a column, we don't need a definition [of MSDs]," explains **Jim Maddux**, a statistician with OSHA's directorate of safety standards. "If we decide the column is useful, we'll use the old definition or adopt a new one."

### **Tracking could help employers**

Every year, the Bureau of Labor Statistics (BLS) releases data on MSDs that involve time away from work, including details about body part affected (back, upper extremity, etc.) and industry-specific data. BLS compiles that data from surveys of about 200,000 employers.

With the record-keeping change, BLS would have additional information on reportable injuries that do not involve time away from work, says **William Weber**, MS, BLS assistant commissioner for safety health and working conditions. "It would give a more complete picture of the total problem of MSDs."

At the same time, employers would have to decide whether to check the MSD box, he notes. "That does depend on the employers'

understanding of the definition of MSDs and their ability to apply that definition consistently," he says.

In the long run, employers are the ones who would actually benefit from the new record-keeping requirement, asserts **Guy Fragala**, PhD, PE, CSP, director of environmental health and safety at the University of Massachusetts Medical Center in Worcester.

BLS data (available at [www.bls.gov/iif/osheval.htm](http://www.bls.gov/iif/osheval.htm)) provide national benchmarks, but a separate reporting of MSDs on the OSHA 300 would make it easier for employers to track their own injuries and monitor the effectiveness of interventions, he says.

"Musculoskeletal disorders are an important occupational injury problem. So if we can develop record-keeping systems that will help us better understand where problems are occurring, I think that will be useful," Fragala says. "It's worth the effort to review the system and come up with a mechanism which will allow us to track our experience in this area."

For more information, visit the OSHA web site at [www.osha.gov](http://www.osha.gov).

## Reference

1. 67 Fed Reg 44,037 (2002). ■

# Texas workers' comp reimbursements slashed

*Medical group says quality of care is threatened*

Under a new guideline adopted April 25, 2002, by the Texas Workers' Compensation Commission, "Injured workers will find it difficult, if not impossible, to obtain the quality medical care that the Texas legislature has promised them," warns **Fred Merian**, MD, president of the Texas Medical Association (TMA) and a family physician in Victoria.

In a formal response to the new guidelines, which were slated to go into effect Sept. 1, the TMA has joined forces with the Texas AFL-CIO in a joint suit aimed at blocking implementation.

## Reimbursement to be slashed

According to the TMA, the new guideline cuts reimbursements by 17%-41% for surgeons, radiologists, pathologists, internists, and physical medicine specialists who treat injured workers.

"Primary care physicians are currently operating at Medicare levels," Merian explains. "We would actually get some increase in our evaluation and management codes, but the surgeons get the biggest decrease. The insurance companies end up benefiting from this."

The big losers, he says, will be the workers, because most physicians cannot afford to treat

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patients under the new reimbursement guideline. "Surgeons will have to see patients in the emergency room, of course, but for knee injuries, back injuries, carpal tunnel injuries and others that can be seen in the office, physicians will have trouble taking care of these," he asserts.

This will inevitably lead to a decline in quality of care, Merian warns. "Patients will be seen in the emergency room for initial injury treatment, but they can't have an emergency room physician as their primary care provider. Yet under the new guideline, there is no alternative. It's the worst way to get treatment; there's no ongoing care, and every physician keeps repeating the same test. What is required is longitudinal care by the same physician."

This recent action by the state's Workers' Compensation Commission completes a double whammy against workers, Merian adds. "This state got the legal profession out of workers' comp several years ago. They made it much more difficult for patients to go to jury trial, but they did set up another system to take care of them. Now what they're essentially doing is ensuring they won't be treated. The quality docs they have won't keep working with them for these rates."

### **Making a bad system worse**

The new guideline adds insult to injury. The workers' comp system already is considered incredibly hassle-filled by Texas physicians. "I just got a fax from one of the insurance companies asking me to write a letter of medical necessity for a prescription I gave a patient," says Merian. "I get three or four of these a week, and I have been treating many of these patients for injuries for several years, and they are already on the medications. In

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addition, you can't charge anything above your regular office visit fee without sending them a copy of the records. This means you can't bill electronically and you're likely to receive payment way beyond the 45 days in which they are supposed to pay us. Essentially, this stops you from taking cases like these."

As of this writing, the TMA was expecting to receive a judge's ruling on the lawsuit on Aug. 19, 2002. "He will have to rule that day or in a few days to act by Sept. 1," he notes.

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