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APRIL 2001
VOL. 11, NO. 4 (pages 37-48)
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Feds blow the whistle on railroad's plan for genetic testing for carpal tunnel

DOT also changes rules for validity testing of urine

Two recent developments in workplace testing may have a significant impact on how occupational health providers offer one of their bread-and-butter services.

In one case, a major employer received harsh criticism for what it considered to be an innovative program to investigate carpal tunnel syndrome. The other development is a change in federal testing procedures that will affect nearly all urine tests for drugs and alcohol.

The carpal tunnel testing controversy began when the U.S. Equal Employment Opportunity Commission (EEOC) filed a petition for a preliminary injunction against Burlington Northern Santa Fe Railway Company (BNSF), based in Forth Worth, TX, to end genetic testing of employees who filed claims for work-related injuries based on carpal tunnel syndrome. The employees were not told of the genetic test or asked to consent to it, says **Ida Castro**, EEOC chairwoman. At least one individual who refused to provide a blood sample because he suspected it would be used for genetic testing was threatened with imminent discharge if he failed to submit the sample, she says. The company is disputing that charge.

"This is EEOC's first lawsuit challenging genetic testing," Castro says. "As science and technology advance, we must be vigilant and ensure that these new developments are not used in a manner that violate workers' rights."

Castro calls the testing "an egregious violation of

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the Americans with Disabilities Act (ADA)." In its petition, filed in U.S. District Court for the Northern District of Iowa in Sioux City, the EEOC asked the court to order the railroad to end its nationwide policy of requiring employees who submitted claims of work-related carpal tunnel syndrome to provide blood samples for genetic testing. The samples were used for a genetic DNA test for Chromosome 17 deletion, which is claimed to predict some forms of carpal tunnel syndrome. The EEOC also sought to halt any disciplinary action or termination of the employee who refused to submit a blood sample.

In announcing the court action, **Paul Steven Miller**, EEOC commissioner, explained that the EEOC takes the position that "basing employment decisions on genetic testing violates the ADA. In particular, employers may only require employees to submit to any medical examination if those examinations are job-related and consistent with business necessity. Any test that purports to predict future disabilities, whether or not it is accurate, is unlikely to be relevant to the employee's present ability to perform his or her job."

Employees filed discrimination charges

According to **Chester Bailey**, director of the EEOC's Milwaukee district office, the action was based on six charges of discrimination. Four of the charges were filed by affected individuals; two were filed by union officials of the Brotherhood of Maintenance of the Way Employees on behalf of all affected members, he says.

Bailey says the EEOC determined after a preliminary investigation that "the employees would suffer irreparable injury through the invasion of their most intimate privacy rights if the practice of testing is not ended."

The EEOC is the federal agency responsible for enforcing the ADA, which prohibits discrimination against qualified individuals with disabilities, including prohibiting an employer from seeking disability-related information not related to an employee's ability to perform his or her job.

BNSF initially defended its use of the genetic testing but then announced it would cease the practice entirely among its 40,000-person work force. Company officials called the genetic testing a "pilot program" that was started in March 2000.

"Effective today, the team concluded that BNSF will stop including in any employee testing a DNA factor for carpal tunnel syndrome," the company announced soon after the EEOC filed suit.

BNSF reports that about 125 active employees filed claims since March 2000 for carpal tunnel syndrome-related injuries. About 20 BNSF employees completed a medical examination to support their claims. Several employees refused to take the blood test, but none received any disciplinary action.

"The [EEOC] court action had erroneously asserted that the DNA test had been broadly requested of BNSF employees when, in fact, the test had been requested only in response to a limited number of carpal tunnel injury claims," the company said in a release. "Further, the DNA portion of the medical examination was not being used to determine the employee's present ability to perform his or her job, as reported."

BNSF also agreed to an order to be entered by the Federal District Court in Sioux City in response to the Feb. 9 court action by the EEOC. In the order, BNSF voluntarily agreed to suspend testing that would identify a genetic cause for carpal tunnel syndrome in response to employee claims. BNSF operates one of the largest rail networks in North America, with 33,500 route miles of track covering 28 states and two Canadian provinces.

DOT changes rule on validity testing

In another controversial matter involving workplace testing, the federal Department of Transportation (DOT) announced recently that it revised its drug- and alcohol-testing rule, which affects employees of transportation companies who occupy sensitive safety positions. The DOT requirements for validity testing of samples, specifically the cutoff numbers for determining when a sample has been adulterated, have been under fire in recent months.

The rule issued recently amends the department's regulations, first issued in 1988, that require drug testing of employees in sensitive safety positions in the aviation, motor carrier, rail, transit, maritime, and pipeline industries. Alcohol testing was added to the requirements in 1994. Most of the changes stem from a recent controversy in which the Atlanta-based Delta Air Lines announced it was pulling its testing work from a popular lab because of a dispute with the pilots' union over the accuracy of validity testing. The lab reported that the pilot's urine sample had been substituted.

After some debate, the airline gave in and decided to reinstate the pilot and flight attendants, but it pulled its business from the lab because of concerns about the reliability of its testing. In addition, the Delta announcement said the company would require samples thought to be substituted to be sent to an independent lab for confirmation. Federal regulators responded by launching a survey of all DOT-certified laboratories to determine whether they are using the most current procedures and standards for validity testing.

Airlines in the United States have randomly tested flight crews for drug use since 1989. The airlines began using the validity tests in 1998 even though the DOT does not require them.

Changes aimed at ensuring fair treatment

The DOT changed the testing rule to extend to allegedly adulterated samples — two of the same protections afforded employees who test positive. Previously, improper creatinine levels automatically deemed the sample adulterated. But under the new rule, a medical review officer may void that validity test if there are legitimate reasons for the results. Also, workers will have the right to demand a second sample of the specimen be tested at another laboratory.

These are some of the changes from current requirements:

- To ensure fairness to employees, a medical review officer who is a physician will review the test results when a laboratory indicates that an employee's specimen may have been adulterated or substituted. Any employee also will be able to obtain, at a different certified laboratory, a test of his or her split specimen — so called because specimens are split into two separate containers to allow for re-testing — to make sure that the original laboratory did not make an error. Because of the potentially significant impact of the employee following an adulterated or substituted specimen result report, the requirements for physician review and access to testing of the split were implemented immediately.
- Validity testing, which is designed to deter and detect attempts to adulterate or substitute specimens, will continue to be voluntary on the part of the employer using current procedures. When the Department of Health and Human Services (HHS), which regulates drug-testing laboratories, finalizes its mandatory procedures for validity testing, the DOT will publish a notice in the *Federal Register* making validity testing mandatory in the transportation industry.
- Employers may apply to the appropriate

DOT operating administration for a waiver allowing them to temporarily remove employees from performing safety-related tasks while the medical review officer is deciding whether there may be a legitimate medical explanation for a positive result from a laboratory. The conditions for obtaining a waiver include an important measure to continue to protect employee confidentiality and to allow an employee to be paid during this period.

• Contract service providers (often called consortia or third-party administrators) will be authorized, to a greater extent than previously, to transmit information such as drug test results to employers.

• There is a new "public interest exclusion" provision in the rule allowing the DOT to protect the public from the actions of service providers — firms that conduct tests under contract to transportation companies — that violate the department's rules. This provision includes significant due-process protections to ensure that the process is fair.

• Enhanced training requirements for drug and alcohol testing personnel have been added. The measure is designed to refine procedures for collectors and breath alcohol technicians to:

— increase their effectiveness;

— ensure accurate tests;

— ensure that all medical review officers have current technical and regulatory information and training;

— ensure that substance abuse professionals across the country are consistent in their evaluation and assessment of employees who tested positive in the first round of testing for drugs or alcohol.

The majority of the new rule goes into effect Aug. 1, 2001, to give employers and businesses time to learn about its provisions before moving to compliance. A few provisions, such as medical review officer review of suspected adulterated or substituted specimens, the split-specimen review procedures for validity testing, and the public interest exclusions provision were implemented immediately and now are in effect. ■

Two agencies say privacy regs still need work

The American Association of Occupational Health Nurses (AAOHN) in Atlanta and the American College of Occupational and Environmental Medicine (ACOEM) in Arlington Heights, IL, are calling on the new Congress to address major gaps left by the recently adopted health privacy regulation. The nation's two largest occupational health organizations urge members of Congress to support legislation that will extend health protections to cover all health information and all health care providers.

Deborah DiBenedetto, MBA, RN, COHN-S, AAOHN president, says the issue of privacy rights in occupational health were not settled with the recent release of the federal privacy rules.

"AAOHN and ACOEM are pleased that the Senate Health, Education, Labor, and Pensions (HELP) Committee is providing an opportunity to continue the open dialogue about the new health privacy rules," DiBenedetto says. "The new rules issued by the Department of Health and Human Services (HHS) are a major step toward protecting all American's health information, but still leave large amounts of information vulnerable."

Robert Goldberg, MD, FACOEM, ACOEM president, agrees. Goldberg says occupational health professionals have some special concerns that weren't addressed adequately. Even the debate generated among most health care professionals does not address the particular concerns that occupational health physicians and nurses will encounter.

"Despite what has been reported in the media, all health care information is not protected by the new rules," he adds. "In fact, most health information related to an individual's employment is not protected and can be accessed by employers. Such information could be used to make decisions about hiring, firing, and promotions."

Both organizations commend HHS for its work on the new rules, but they recognize the statutory limitations the agency had under the 1996 Health Insurance Portability and Accountability Act (HIPAA). Individuals will visit an occupational heath care provider for many reasons associated with employment: pre-placement physical exams, health promotion activities, medical surveillance, fitness-for-duty examinations, independent medical examinations, and medical purposes associated with health and safety regulations.

Information derived from activities rarely would be transmitted electronically or meet the definition of a standard transaction, Goldberg says. And since the new rules apply only to those

providers engaged in "standard transactions" as defined by HIPAA, the information collected by these providers may not be included in the protections afforded by the new rules.

Goldberg and DiBenedetto say employers do have legitimate needs to have access to certain personal health information for managing workers' compensation, health, and disability benefits, for job accommodations, or when considering fitness for work. However, they agree that employers should not have unfettered access to an employee's entire health record.

"Unless these large gaps are addressed by legislation, employers will continue to have relatively free access to employee health information," adds DiBenedetto. "AAOHN and ACOEM support federal legislation to close the gaps in the HHS rules and extend protections to cover all health information and health care providers — regardless of how information is transmitted and regardless of whether the information results from a HIPAA standard transaction. Otherwise, these gaps will continue to leave large amounts of personal health information unprotected." ■

Enzi tries to overturn OSHA ergonomics rule

One of the most steadfast foes of the federal ergonomics rule vows to fight until the rule is overturned. Sen. **Mike Enzi** (R-WY) says he will work closely with a group of his colleagues to strike the last-minute Clinton administration rule that Enzi says could hurt workers and consumers alike by paralyzing businesses across the country and causing dramatic price hikes for goods and services.

Enzi, who chairs the Senate subcommittee with oversight authority over the Occupational Safety and Health Administration, says he believes OSHA's massive ergonomics rule designed to prevent repetitive motion injuries will do little to help workers. At the same time, the rule will increase the regulatory burden on small businesses to an unbearable level, he contends.

"If ever there was an instance that called for Congress to step in and send an administrative agency rule back to the drawing board, this is it," Enzi says.

"Procedurally, the Clinton OSHA paid its own witnesses to advocate the political position of the administration, and the agency forced the rule through without properly considering public comments so a new administration wouldn't have time to review its action. Substantively, OSHA did its best to ignore the negative consequences this onerous rule would have on workers, states, businesses, and entire industries."

OSHA published its rule before it considered the complexities of what causes repetitive motion injuries and how they relate to the workplace as conveyed in a recent National Academy of Sciences study, according to Enzi.

He says if OSHA had waited for the study to come out before forcing the rule through, the agency might have been able to craft a rule that would better solve the problem.

OSHA also did not address the concerns regarding the rule's interference with state workers' compensation programs, he says. Nor did it take into account the forced additional costs on businesses. It also failed to note the increased costs this rule will force on businesses and those that are price-controlled by the government, Enzi says.

Enzi says he was particularly concerned about the health care industry. He compared the situation to the California power crisis where government forced businesses to sell their products below actual cost, and now the businesses are going bankrupt.

"I don't want this ergo rule to cost people their jobs, to force small businesses, especially health care providers, out of business," he says. "This rule would do that without safety results."

Coverage too broad, Enzi says

The ergonomic regulations are estimated to cover more than 100 million workers across the country, including businesses with only one worker who experiences an ergonomics injury. This would require extra staff to administer a comprehensive ergonomics program, Enzi says. The ergonomics standard covers one of the broadest groups of employers ever covered by a single OSHA rule, he notes.

Hearings on a rule that covered a limited group of businesses were held, but after the hearings, a greatly expanded and changed rule that covered a larger group of businesses was put through, Enzi says.

"This rule would force convenience stores to implement the same standards as meat packing plants," he says. "Ergonomic problems in the

workplace must be solved, but as written, this rule doesn't solve the problem. The standards set forth in this one-size-fits-all rule do not make sense. The rule piles on paperwork rather than encouraging simple safety measures that both large and small businesses can understand and comply with."

CRA may make it possible to overturn rule

The Employment Policy Foundation estimated the cost of compliance with the rule for businesses across the nation to be about $125 billion each year. The rule is set to go into affect October 2001, but Enzi says he hopes Congress can help the workplace avoid the red tape tangles through use of the Congressional Review Act (CRA). The CRA is a little-used law allowing Congress to overturn an agency rule.

Key is the fact that the CRA is insulated in the Senate from a filibuster and debate is limited to a total of 10 hours, thus a majority of the Senate vote, rather than a filibuster-proof 60 votes, is all that's needed to pass a CRA resolution. There are no special procedures in the House for considering a CRA resolution.

To date, no rule has ever been successfully overturned through use of the CRA, but Enzi contends this is a time in history when many things are being done that have never been done before.

"There are a number of reasons this procedure is rarely tried and never successfully; the predominant reason being that Congress is usually in a position of overturning a rule that was put in place by a president who wanted the rule there in the first place," he says. "It requires 67 votes in the Senate to overturn a presidential veto. In this case though, I believe President Bush would gladly let Congress rid the country of the current rule, and he would welcome time to work on an ergonomics rule that is well thought out."

Enzi says passing a resolution to overturn the ergonomics rule will not be easy, but he hopes his colleagues will see the flaws in the current rule.

"Republicans and Democrats saw the flaws before the rule was published," he says.

"If a new rule is drafted, it should incorporate data from the National Academy of Sciences study. Rulemakers should consider the comments from labor and businesses across the country and take into account such a rule's affect on state programs and specific industries such as health care," Enzi adds. ■

Job demands may affect speed of return to work

Job characteristics may be a key determinant in how soon a worker returns to work after having a stroke, according to research presented recently at the American Stroke Association's 26th International Stroke Conference in Fort Lauderdale, FL. The American Stroke Association is a division of the American Heart Association, based in Dallas.

The study is the first to examine job characteristics and compare them with the time stroke survivors take to return to work or whether they return at all, says lead researcher **Marcella Wozniak**, MD, PhD, an associate professor of neurology at the University of Maryland School of Medicine in Baltimore.

"The type and characteristics of the job are very important in determining who will return to work," she says. "By understanding why some individuals do not return to work, we can develop programs to help more people get back to their jobs. Similarly, we can learn to identify those who will have great difficulty resuming work."

Physical and mental aspects play role

Researchers found that both the physical and mental demands of the job were important in predicting patients' return. Employees who were back to work within 12 months had significantly less physically and psychologically demanding jobs. They felt their jobs were very secure, felt more job satisfaction, and believed they had more authority to make decisions on the job.

"Survivors who felt their job was secure returned to work significantly sooner than those who felt they were at risk of losing their job," Wozniak says. "Those with authority to make decisions about their job and with supportive coworkers and employers also tended to return to work sooner."

The results are important in light of the aging of America's work force. She points out that the risk of stroke increases dramatically with age, the average age of workers is increasing, and the Social Security Administration (SSA) recently changed its retirement age policies.

"[SSA] increased the minimum retirement age to 67 for people born after 1959," says Wozniak. "For people born between 1934 and 1959, a sliding scale

to determine retirement age is in place. Therefore, more people will be working at the time of stroke, and, as more effective treatments are developed, more survivors will be facing the possibility of re-employment."

The study, conducted at the University of Maryland Medical Center, recruited patients who had their first ischemic stroke — a stroke due to blood-vessel blockage — between the ages of 24 and 64 and were employed full-time outside of the home. Of 150 patients, 64% were male and 48% were African-American. They were all able to go home or to a rehabilitation center immediately after their stroke.

What are workers' attitudes?

Six weeks later, study participants completed standardized questionnaires to measure their job perceptions. The questionnaires were used in other studies examining the association of heart disease and other illnesses with employment. Patients rated their agreement or disagreement with statements about their jobs, such as:

- "My job is very hectic."
- "I have a lot to say about what happens on my job."
- "My prospects for career development and promotions are good."
- "I can take it easy and still get my work done."

Patients were contacted at six and 12 months after the stroke to determine when they returned to work.

"Our prior analysis and work by others had found that white-collar, [better] educated, and wealthier patients were more likely to return to work," says Wozniak.

"On one level, this seems obvious because blue-collar jobs are more likely to be physically demanding. On other levels, white-collar jobs would have more cognitive demands, and educated patients with higher-paying jobs would be more likely to have disability insurance and other financial resources to retire early. These factors should make it less likely for white-collar workers to return," she explains.

Other factors that may help employees make the decision to return to work could include:

- perceived ability to change or modify their job environment;
- assessment of how easily they could be replaced at work;
- how likely workers feel they are to lose the job;
- social support network at work.

"How the other factors play into what is clearly a complex relationship is mostly speculation right now," says Wozniak. "It is interesting that even in people who regain their independence in daily activities, only about 60% return to work." ■

OSHA stresses carbon monoxide dangers

Following a January incident in which 13 employees of a Chelsea, MA, meat wholesaler were overcome by carbon monoxide from a borrowed forklift truck, the Occupational Safety and Health Administration cited the wholesaler, James Derba. Also cited was the company which supplied the forklift, Big T&D Trucking, also of Chelsea, for serious and other than serious violations of the Occupational Safety and Health Act.

OSHA proposed combined penalties against the two employers totaling $22,600.

According to **Brenda Gordon**, OSHA area director for Suffolk County and Southeastern Massachusetts, the alleged violations encompass the following:

- overexposure to carbon monoxide;
- lack of adequate engineering controls to reduce such exposure;
- the use of defective forklift trucks;
- lack of employee training in the safe operation of forklift trucks and pallet jacks;
- failure to maintain required employee illness and injury logs.

On Jan. 3, 2001, Derba employees were using a propane-powered forklift truck borrowed from Big T&D Trucking to help hang 200-pound to 300-pound beef sections in a meat hanging cooler. Carbon monoxide from the truck's exhaust pipe built up to dangerous levels in the enclosed space of the unventilated cooler.

As a result, the workers experienced symptoms of carbon monoxide poisoning including headaches, nausea, dizziness, vomiting, shortness of breath, and loss of consciousness. All required medical attention.

"This was a close call, a textbook example of the dangers of carbon monoxide exposure that clearly illustrates why employers need to take effective steps to safeguard workers," Gordon

says. "In this case, the employees were acutely exposed to excess levels of carbon monoxide that were potentially lethal. This forklift truck should not have been allowed to operate in this cooler."

Gordon explains that carbon monoxide is a colorless, odorless, tasteless poisonous gas produced by the incomplete burning of any material containing carbon, such as gasoline, natural gas, oil, propane, coal, or wood. One of the most common sources of exposure in the workplace is the internal combustion engine.

"Carbon monoxide is a chemical asphyxiant," she says. "Exposure to it restricts the ability of the blood system to carry necessary oxygen to body tissues. Prolonged overexposure to carbon monoxide can result in death or permanent damage to those parts of the body which require a lot of oxygen, such as the heart and brain."

Among the means of reducing carbon monoxide hazards are providing adequate ventilation in the workplace and ensuring that fossil-fuel-powered equipment is in proper working order so as to minimize its carbon monoxide levels. Where appropriate ventilation in unavailable, effective controls — for example, the use of an electric rather than a gas-powered vehicle — should be implemented.

Cold weather can increase carbon monoxide hazards since traditional warm weather sources of workplace ventilation — windows, doors, vents, bays — may be closed or sealed against low outside temperatures.

An OSHA fact sheet on carbon monoxide poisoning is available through its area offices or on-line at www.osha.gov under the News Room link. ■

Record-keeping regs revised to ease burden

The Occupational Safety and Health Administration has issued a revised rule to improve the system employers use to track and record workplace injuries and illnesses.

OSHA's record-keeping requirements, in place since 1971, were designed to help employers recognize workplace hazards and correct hazardous conditions by keeping track of work-related injuries and illnesses and their causes.

The revised rule is intended to produce better information about occupational injuries and illnesses while simplifying the overall record-keeping system for employers. The rule will also better protect employees' privacy.

"Record keeping is a critical part of safety and health efforts in every workplace," said **Alexis Herman,** then secretary of labor, when announcing the change. "The revision we are announcing today will not lessen an employer's record-keeping responsibilities, but it will make it easier to successfully meet the requirements."

The final rule becomes effective on Jan. 1, 2002, and will affect approximately 1.3 million establishments. OSHA is publishing the rule now to give employers ample time to learn the new requirements and to revise computer systems they may be using for record keeping. (During this transition period, employers must adhere to requirements of the original rule.)

Some industries are exempt

Like the former rule, employers with 10 or fewer employees are exempt from most requirements of the new rule, as are a number of industries classified as low-hazard retail, service, finance, insurance, and real estate sectors. The new rule updates the list of exempted industries to reflect recent industry data. (All employers covered by the Occupational Safety and Health Act must continue to report any workplace incident resulting in a fatality or the hospitalization of three or more employees.)

The revised rule includes a provision for recording needlestick and sharps injuries that is consistent with recently passed legislation requiring OSHA to revise its bloodborne pathogens standard to address such injuries. This provision is expected to result in a significant increase in recordable cases annually.

The record-keeping rule also conforms with OSHA's ergonomics standard published last November. It simplifies the manner in which employers record musculoskeletal disorders (MSDs), replacing a cumbersome system in which MSDs were recorded using criteria different from those for other injuries or illnesses. The revised forms have a separate column for recording MSDs, which will improve the compilation of national data on these disorders.

One of the least understood concepts of record keeping has been restricted work; the new rule clarifies the definition of restricted work or light duty and makes it easier to record those cases. Work-related injuries also are better defined to

ensure the recording only of appropriate cases while excluding cases clearly unrelated to work.

The revised rule also promotes improved employee awareness and involvement in the record-keeping process, providing workers and their representatives access to the information on record-keeping forms and increasing awareness of potential hazards in the workplace. Privacy concerns of employees also have been addressed; the former rule had no privacy protections covering the log used to record work-related injuries and illnesses.

Written in plain language using a question-and-answer format, for the first time, the regulation uses checklists and flowcharts to provide easier interpretations of record-keeping requirements. Finally, employers are given more flexibility in using computers and telecommunications technology to meet their record-keeping requirements. ■

Automotive industry takes action to reduce injuries

Occupational injuries are plaguing the automotive industry worldwide, and a group of manufacturers are banding together to address the problem.

The severity of the problem is leading the Automotive Industry Action Group (AIAG) in Southfield, MI, to launch a new initiative in the area of occupational health and safety, says **Kenneth Godzina**, AIAG executive director.

He says the group wants to bring attention to global occupational health and safety issues in the automotive industry, reduce the number of work-related injuries, and improve overall work environments.

"We hope the guidelines and standards that AIAG defines will help save lives and improve work environments throughout the automotive supply chain," Godzina says. "The automotive industry spends billions of dollars each year on work-related injuries and illnesses. With this new initiative, AIAG will help play a role in identifying key health and safety issues and in educating the supply chain on how to reduce and prevent these injuries and illnesses."

According to Godzina, the guidelines and standards also will help the automotive industry reduce workers' compensation costs. Other benefits expected from the initiative include common specifications, cost-effective approaches to global issues, labor harmonization, and a common voice to influence national standards bodies.

The initiative has received the support of General Motors Corp., Ford Motor Co., and DaimlerChrysler Corp.

The initiative will be overseen by the AIAG occupational health and safety steering committee, currently being formed. The committee will be responsible for supervising work groups, which will focus on key safety issues in the automotive industry and further educating the supply chain on these issues:

- industrial truck operator restraint and pedestrian safety guidelines;
- machine/energy controls best practices;
- industrial guarding of machinery guideline;
- handling of hazardous materials guidelines;
- optimum shipping-and-receiving systems.

Additional work groups will be formed as other issues related to occupational health and safety arise.

The new steering committee also will hold numerous occupational health and safety related sessions at AIAG's 2001 AUTO-TECH Conference & Exhibition slated for Aug. 28-30 in Detroit.

The AIAG is a not-for-profit trade association of more than 1,600 automotive and truck manufacturers and their suppliers. ■

Heavy drinking may not be linked to work injuries

Employers can safely blame heavy drinking as one cause of reduced productivity and lost workdays, but a new study says it doesn't seem to be directly linked to injuries on the job.

Mark Veazie, MD, of the University of Arizona in Tucson, says his study results do not mean drinking on the job is safe, but for some reason, the drinking is not strongly associated with injuries. Veazie studied the issue with **Gordon Smith**, MD, an associate professor of health policy and management with Johns Hopkins University in Baltimore, and found that "alcohol dependence may not be strongly associated with the occurrence of everyday acute injuries at work in the young, average U.S. worker."

People who report drinking heavily do report more injuries at work, but Veazie says those

injuries often can be traced to other factors. Most significantly, he says people who drink heavily are more likely to work in particularly hazardous occupations, ones requiring only a high school education or less.

Veazie says he and Smith were surprised at the results of their study because others have shown a stronger association between heavy drinking and workplace injury risk. Their study in a recent issue of *Alcoholism: Clinical and Experimental Research* (2000; 12:1,811-1,819) is based on data collected over two decades. Of 8,000 worker ages 23 to 32, 2% had experienced a work injury ranging from fractures to burns, among many others.

But after adjusting the data for potentially confounding influences, the researchers found "no association between alcohol dependence and injury among current drinkers." Increasing the amount of alcohol consumed did not seem to increase the odd of sustaining an injury, the report says. ■

Heart disease strong risk for reduced productivity

Heart disease is the strongest risk factor for reduced work productivity, according to a new report that may be the first nationwide analysis to specifically identify which diseases are most likely to result in decreased worker productivity.

The report, *Health Status of the United States Workforce*, determined that workers under age 55 who have heart disease are eight times more likely to experience reduced productivity — or the ability to do one's job — than workers without heart disease. Workers in this age group who have diabetes or arthritis are six and four times more likely, respectively, to report work limitations.

In addition, the report found that absenteeism due to health-related causes could result in at least $65 billion in lost wages annually, says **Edward Emmett**, MD, professor and director of academic programs in occupational medicine at the University of Pennsylvania in Philadelphia.

"This report marks the first time we've been able to evaluate the health of the U.S. work force, and the results are not as good as we'd hoped," Emmett says. "This information is truly a call to action. Clearly, there is a need for better diagnosis and treatment in order to extend productive life-years, maximize continued employment, and also decrease health care expenditures associated with medical complications."

The report suggests that the presence in the work force of undiagnosed and uncontrolled chronic conditions greatly increases the risk of serious illness, says **Robin Hertz**, PhD, epidemiologist and senior director of outcomes research at Pfizer Inc.

"As many as 90,000 heart attacks and vascular events among workers each year in the U.S. may be due to elevated blood pressure and cholesterol, based on projections using the Framingham Heart Study equations," Hertz says. "Smoking, another major risk factor, may be associated with as many as 74,000 cases of acute coronary events per year in the work force."

Pfizer conducted the study and prepared the report. The report presents new analyses of the Third National Health and Nutrition Examination Survey (NHANES III), and the National Health Interview Survey (NHIS).

NHANES III is a nationally representative survey of approximately 34,000 people, and NHIS is a nationally representative survey of approximately 24,000 households, which includes 63,000 people. About 118 million people ages 18-64 in the United States are employed, accounting for 73% of the adult population in that age group. Fifty-four percent of employed persons are male, and 69% are under the age of 45.

"Most studies linking health and productivity are limited to single diseases and small populations," Hertz says. "Analysis of major national surveys has enabled us to expand our knowledge base and communicate new information that will serve the interests of both employers and employees."

These are some of the other findings presented in the report:

• An estimated 37 million American workers have high cholesterol. Sixty-seven percent of the people with high cholesterol are not adequately controlled. Forty-one percent of those with high cholesterol have not even been diagnosed. These high rates of undiagnosed and uncontrolled disease put both the worker and the employer at a disadvantage.

• An estimated 18 million workers have high blood pressure. Seventy-eight percent of those with high blood pressure are not adequately controlled. Thirty-five percent of workers with high blood pressure don't even know about it.

• Men are less likely than women to be aware of their asymptomatic chronic conditions.

• Workers with arthritis are absent from work three times as often as workers without arthritis. Absenteeism is highest among workers ages 35-44, the age group least likely to be treated with prescription medication for arthritis. Arthritis poses a threefold to fourfold increased risk of diminished work productivity.

• Workers with migraine headaches are absent from work three times as often as workers without migraines. Workers under 55 years of age with migraines are twice as likely to not be able to do the amount or kind of work for which they are responsible or skilled as workers under 55 who don't have migraines.

• Eight percent of workers ages 18-39 screen positive for major depression, but only 12% of these workers are treated with antidepressant medications. Two percent of employed men and 5% of employed women have attempted suicide.

[For a copy of the complete report, contact Mary Ann Bohrer at (917) 941-9907 or Susan Yarin at (212) 733-5260.] ■

Chronic bronchitis leading cause of lost productivity

A new study is the first to quantify the impact of acute exacerbations of chronic bronchitis (AECB) and its treatment on the cost of lost work productivity, based on patients' own assessments of impairment attributable to the disorder while on the job.

The report shows that, when used for the treatment of AECB, the fluoroquinolone antibiotic moxifloxacin HCl (Avelox) resulted in less impairment of work productivity and may result in greater cost savings compared to treatment with levofloxacin HCl (Levaquin).

This study was supported through an educational grant from the Bayer Corp., manufacturer of moxifloxacin (Avelox).

Eleanor Perfetto, PhD, chief operating officer for Quality Metrics in Lincoln, RI, and co-author of the study, says the research provides more specific information on the workplace impact of chronic bronchitis than previous studies.

"Past studies have shown that AECB is responsible for a great deal of workplace costs related to absenteeism," Perfetto says. "Our study showed that AECB also impairs productivity in the workplace; however, patients reported less impairment during an episode of AECB when they were treated with Avelox than with Levaquin. Because impaired work productivity is costly for employers, our findings suggest that insurers and employers should consider such costs, in addition to direct medical expenses, when making formulary decisions."

Perfetto says that although other studies have examined the effect of antibiotic therapy for AECB and other respiratory illnesses on various indicators of work productivity, such as absenteeism, this study was the first to also quantify reduced work productivity based on patients' subjective assessments of work impairment caused by AECB, and include it in the estimation of indirect, work-related costs.

She says the data for the study were drawn

Occupational Health Management™ (ISSN# 1082-5339) is published monthly by American Health Consultants®, 3525 Piedmont Road, Building Six, Piedmont Center, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Occupational Health Management**™, P.O. Box 740059, Atlanta, GA 30374.

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from a previously completed clinical trial, and indirect costs were estimated based on national wage averages.

The findings were part of a randomized, double-blind clinical study that compared the safety and efficacy of moxifloxacin 400 mg daily for five days to levofloxacin 500 mg daily for seven days, in the treatment of AECB.

The two treatments were found to be equivalent in terms of clinical efficacy; the findings published in *Managed Care Interface* focus on the indirect costs of lost work time and lowered work productivity. Of 192 patients with confirmed AECB who were valid for analysis and who reported working for pay, 91 were randomly assigned to receive moxifloxacin and 101 received levofloxacin. Lost work time and lowered work productivity were assessed for two time periods:

1. from visit one, the start of therapy, to visit two, the "test of cure" visit, seven to 21 days after therapy was completed;

2. from visit two to visit three, the follow-up visit, 27 to 38 days after therapy.

Patients were asked how many hours they missed from work because of AECB and other reasons; how many hours they worked during the study; and about their subjective assessment of the degree of impairment AECB caused them while working, on a scale of 0 to 10 (0 = AECB had very little effect, and 10 = AECB prevented them from working).

The effect of AECB and treatment on productivity, expressed as indirect workplace costs, was calculated based on the amount of work time affected, the degree of impairment, and national averages for hourly wages.

At visit two, patients in the moxifloxacin group reported significantly less impairment during the time between visits one and two than did patients in the levofloxacin group: a median of 3 vs. 5 on the 0-10 scale, respectively.

These impairment rates applied to an average total of 61.3 and 60.2 work hours for each patient in the moxifloxacin and levofloxacin groups, respectively, between the two visits. Impairment rates between visits two and three were not significantly different. There were no significant differences between the two groups in the time missed from work between visit one and visit two, or between visit two and visit three.

Josephine Li-McLeod, PhD, associate director of health economics and outcomes research at Bayer Corp., was a co-author of the study. She says the study confirms some benefits that the manufacturer had suspected.

"Our finding that patients in the Avelox group reported less impairment in the early part of the study — between visits one and two — suggests they felt better faster, and is consistent with past anecdotal reports on Avelox," Li-McLeod says.

Researchers estimated that the average cost of reduced productivity for each AECB episode was one-quarter less for the moxifloxacin group compared with the levofloxacin group: $733 vs. $975, respectively, a difference of approximately $242.

Because patients with chronic bronchitis suffer an average of three AECB episodes per year, the cost difference per patient per year would be about $726.

"These kinds of cost advantages can make a big difference to an employer or a managed care organization," Perfetto says.

She also notes that the published direct cost of moxifloxacin is approximately $44 for its recommended five-day course of AECB therapy, compared with approximately $60 for the seven-day regimen of levofloxacin.

"Based on both the direct medical costs and indirect costs of lost productivity, Avelox would appear to be a better choice," she says.

Perfetto cautioned that the study was exploratory and based on data from one clinical trial and those findings need to be confirmed by additional research. ■