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IN THIS ISSUE

Continued on next page

Watch out! OSHA may crack down on reuse of blood tube holders

Union decries practice as 'common but dangerous'

The common practice of reusing blood tube holders violates U.S. Occupational Safety and Health Administration (OSHA) regulations and is an issue under review by the agency, *Hospital Employee Health* has learned.

The California Division of Occupational Safety and Health (Cal-OSHA) recently cited the Kaiser Permanente Los Angeles Medical Center for reuse of tube holders, and Cal-OSHA had previously cited Seton Medical Center in Daly City for that practice. Although federal OSHA inspectors have not issued citations related to the practice, both the 1991 bloodborne pathogens standard and the 1999 updated compliance directive prohibit the practice, a senior OSHA official says.

The removal of tube holders is prohibited even if the health care worker uses a device, such as a gripping mechanism on a sharps container, Cal-OSHA and OSHA officials say.

"We're working with [the National Institute for Occupational Safety and Health] and the [Food and Drug Administration] on solidifying a policy on that issue," a senior OSHA official says. "The standard is clear that needles must not be removed unless it's medically indicated by a procedure."

Because OSHA has not been citing hospitals for the practice, some may erroneously believe that the removal of tube holders using mechanical devices is allowed. "It's apparent that it's been a misinterpretation of the standard," the OSHA official tells *HEH*.

In This Issue **continued from cover**

Rise in obesity raises weighty problem

Hospitals should be prepared to handle bariatric — or morbidly obese — patients with special ergonomic equipment that is either purchased or available through rental, ergonomic experts say. Traditional equipment may have weight limits of 350 pounds, and health care workers may be injured trying to care for heavier patients, experts say. 91

Ergonomic Resources for Bariatric Patients 92

Rapid HIV test back on the market gives boost to PEP

About seven months after it was pulled from the market due to manufacturing problems, the Abbott Murex Single Use Diagnostic System HIV-1 test was re-released in May. Along with the Uni-Gold test by Trinity Biotech, which is available to a limited number of hospitals under an investigational device exemption, hospitals now have options for rapid tests to make quick post-exposure prophylaxis decisions 93

CDC: Expect delays in flu vaccine distribution

While flu experts were hopeful that vaccine delays and shortages would not recur this year, the Centers for Disease Control and Prevention is reporting that more influenza vaccine will be available this year than last year, but delays in the distribution of the vaccine will occur. The CDC is recommending that health care facilities and other vaccine providers maintain a contingency plan. 94

News Brief

Bush nominates Henshaw, Scalia to top labor posts. . . . 96

COMING IN FUTURE ISSUES

- New CDC guidelines on post-exposure prophylaxis
- Sharp alert: Preventing exposures in the OR
- How hospitals are improving compliance with hand hygiene
- Why do needlesticks persist with safer devices?
- A new look at latex glove quality and allergy risk

Removing the tube holder exposes the "back end" of the blood-filled needle, creating the potential for a needlestick. That risk exists regardless of the removal method used, officials say.

"Whenever you remove a needle, there's a potential for needlesticks," says **Len Welsh**, special counsel for regulatory development at Cal-OSHA. "That's the presumption in the regulation."

The International Health Care Worker Safety Center at the University of Virginia in Charlottesville, a leader in the shift to safer devices, likewise advises hospitals not to reuse tube holders. The center's publication, *Advances in Exposure Prevention*, featured an article on a home health nurse who became infected with hepatitis C from a needlestick that occurred when she removed a reusable blood tube holder.

"The trend among device manufacturers is toward phasing out reusable blood tube holders," the center commented. "By instructing employees not to reuse holders, hospital administrators will help reduce the number of preventable sharps injuries and improve safety in the health care workplace."

Shift could impact waste disposal

Still, a shift to single-use tube holders would have a significant impact on hospitals around the country because their reuse is so commonplace. One needlestick expert estimated that the cost of additional or larger disposal containers alone would cost $25 million nationwide.

While individual tube holders may cost only a few cents, the item is used in massive quantities at hospitals around the country. And the disposal of the additional units has environmental and other ramifications.

"This is a difficult issue because the risk from back-end needles is relatively remote," says **Gina Pugliese**, RN, MS, director of the Premier Safety Institute of Premier Inc., a health care alliance based in Chicago. "Hospitals have to balance the whole spectrum of issues, including worker safety, patient safety, cost, and the impact on the environment."

For example, Sewickly (PA) Valley Hospital is currently considering the tube-holder issue in its lab, says **MaryAnn Gruden**, MSN, CRNP, NP-C, COHN-S/CM, employee health nurse practitioner. As executive president of the Association of Occupational Health Professionals, she is aware of the broader impact of halting tube-holder removal.

"You're going to have a phenomenal increase

in the use of those devices [nationwide]," she says. "They're fairly bulky, so if you have to dispose of them, you're going to have the cost associated with that."

Disposal containers could become filled more quickly, which means they would need more frequent emptying. Overfilled sharps disposal containers would be a needlestick risk, Gruden notes.

Those are exactly the issues that Seton Medical Center faced when the hospital was cited by Cal-OSHA in 1999 for removal of the tube holders.

With a switch to single-use devices, the hospital installed larger sharps containers in patient rooms. The cost of additional tube holders was offset by a price reduction the Catholic Healthcare West hospital system received from the vendor, according to **Cynthia Fine**, RN, MSN, CIC, infection control and employee health manager at Catholic Healthcare West in Oakland, CA.

"I think the fact that we've been able to [make the switch] successfully in California and at other hospitals around the United States means it is doable," she says. "The big issue for me is increased waste. I don't see any way to prevent that."

Meanwhile, unions that represent health care workers have begun to focus on the reuse of tube holders. **Bill Borwegen**, MPH, occupational health and safety director of the Service Employees International Union in Washington, DC, says the union will continue to file complaints on the issue. "This may be common, but it's a dangerous practice," he says.

Hospitals may find themselves hard-pressed to justify it. At Seton, Cal-OSHA reduced the fine because inspectors had overlooked the practice for years, but officials would not dismiss the citation, recalls Fine. Ultimately, halting the removal of tube holders is simply the right thing to do, she says. "If you look at the big picture, if we're preventing needlesticks, that's what we need to do." ■

Kaiser hospital cited for splattering safety device

Cal-OSHA action raises needle safety questions

In an action that raises questions about just what is a safety device, the California Division of Occupational Safety and Health (Cal-OSHA) cited the Kaiser Permanente Los Angeles Medical Center for using a safety syringe that splattered blood.

To activate the safety feature of the Becton Dickinson Eclipse blood collection device, health care workers flip a shield over the needle. But when the shield clicks into place, blood may splatter from the needle.

Becton Dickinson officials say in their tests, the splattering occurs only 4% of the time and is mostly contained in the shield. The citation, which is being appealed by Kaiser, notes that safety devices may not cause "splashing, spraying, spattering, and/or generation of droplets of blood."

"In this particular situation, the evidence we saw suggests there's a problem with this device, at least the way Kaiser is using it," says **Len Welsh**, special counsel for regulatory development at Cal-OSHA in Los Angeles. Welsh notes that the impact of the citation is limited to the single Kaiser hospital, one of 27 Kaiser facilities in California.

Yet the issue is further complicated by the fact

that other safety devices also can splatter blood. The Food and Drug Administration's adverse event reporting database includes 39 reports of devices from 1992 to 2001 that splattered blood, including an Eclipse needle, a retractable syringe, and a needleless IV connector.

Some splattering may be related to the way the health care worker activates the device. But the vibration or force of the activation may actually expel a tiny amount of blood from the needle, needle safety experts say.

How are hospitals to know if the device they have chosen is safe enough to avoid a citation?

"They should look at the blood spatter issue and they should look at the needlestick issue and they should have a good handle on those issues as the device is used at their institution," advises Welsh. "If they reasonably conclude that there is not a blood spatter issue and there is not a needlestick issue, it would be hard for us to cite them. We did conclude in the case of Kaiser that there is an issue, a significant one. We could be wrong, but that's our conclusion."

In contrast, the U.S. Occupational Safety and Health Administration (OSHA), which administers safety regulations in 26 states, has not focused on the splatter issue related to safety devices and has not issued any citations for failure to use the "safest" safety device.

An OSHA inspector would focus on the exposure control plan and documentation that the hospital had included frontline health care workers in the evaluation of available products, a senior OSHA inspector said.

SEIU decries 'less safe' safety needles

The Kaiser citation stemmed from a complaint by the Service Employees International Union (SEIU), which had criticized Kaiser's shift from a self-blunting Bio-Plexus needle to the Becton Dickinson device.

"We found five people who got stuck with the Eclipse so-called safer needle when they were in the process of activating the safety feature," says **Bill Borwegen**, MPH, SEIU occupational health and safety director in Washington, DC.

Having won the passage of federal legislation mandating the use of safer needles, Borwegen's focus has shifted toward promoting what he considers to be the better safety technology. The union's views were recently aired in a segment of the *60 Minutes* television news show, in which it contended that group purchasing contracts prevent health care workers from using the devices they would prefer. A phlebotomist featured on the show who had suffered a needlestick was the same person involved in the Kaiser complaint. Becton Dickinson also was a target of that television segment. **(See *Hospital Employee Health*, May 2001, p. 56.)**

"The biggest problem with the implementation of the safer needle law is that people are going to try to comply on the cheap," Borwegen says. "They're going to try to find the cheapest safer needles."

The Cal-OSHA citation, Borwegen says, is "the first case where an employer has been cited for using safer needles that aren't really that safe."

Yet some needlestick experts question the union's tactics and its focus on a particular manufacturer and device.

Employee health professionals say health care workers take many issues into consideration when selecting devices, including the impact on patient care, and they may choose the shielding device over a device that must be activated while the needle is still in the patient.

"Frontline workers have evaluated all the products that are in use," says **Jim Anderson**, a Kaiser spokesman. "Even at the facility involved, there is ongoing work with a labor-management partnership committee to work on safe sharp issues, and that will continue."

Two years ago, during a complaint-related inspection of Seton Medical Center in Daly City, CA, Cal-OSHA asked about splatter caused by the BD Eclipse. The hospital demonstrated that health care workers were trained in proper techniques and could activate the device without splatter. Cal-OSHA did not issue a citation, says **Cynthia Fine**, RN, MSN, CIC, infection control and employee health manager at Catholic Healthcare West in Oakland, CA.

Fine also adds that health care workers evaluated a range of technologies, including retractable and self-blunting needles, and were allowed to select products not contained in the group purchasing organization contract. Most hospitals in the Catholic Healthcare West system chose the BD Eclipse or a similar Portex product, she says.

Borwegen notes that Becton Dickinson actually includes a warning about the potential for splatter on its box labeling of the Eclipse product. "All devices probably splatter to some degree. It's a question of quantity of splatter," he says. "We're talking about significant quantities."

Krista Thompson, CMT(ASCP), vice president

and general manager of BD Preanalytical Solutions in Franklin Lakes, NJ, and a former medical technologist, cites the labeling as evidence of BD's commitment to health care worker safety. "Even though we weren't required to do so, we voluntarily labeled our packages to make sure health care workers are aware of this risk," she says. "We try to make health care workers aware of every potential risk.

"Our data suggests that this product splatters significantly less than other products we have tested on the market," she adds.

Thompson asserts that proper use minimizes splatter, and that most splatter is contained in the shield. The remaining splatter would amount to the size of a period at the end of a typed sentence, she says.

"We have over 2,800 individual sites that are using this product," she says. "It is the most widely used product on the market. Most customers have chosen the product after extensive evaluation and involving frontline health care workers in the decision. It's been a very successful product, being used every day successfully."

It disappoints **Janine Jagger**, MPH, PhD, director of the International Health Care Worker Safety Center at the University of Virginia in Charlottesville, to see this argument focus on a particular safety device when the medical field still has so much work to do to switch from conventional to safety devices. Needlesticks represent a far greater risk to health care worker safety than the small splatter that may occur, she notes.

"The problem is that many if not most needles with engineered sharps safety features result in some splatter," she says. "This is not a new issue. It has been there from the time that the first safety devices were introduced on the market. I have been personally aware of splatter being an issue with safety devices since about 1989."

A crackdown on safety devices that may emit a small splatter when activated could have unanticipated ramifications, says Jagger.

"I think this citation is very troublesome because we can't apply the splatter criteria to one device without applying it equally to other devices," she says. "If this citation is an indication that regulatory agencies are going to apply a 'zero-tolerance' criteria on the splatter issue, then we are in big trouble because a whole boatload of safety devices won't pass; not just blood-drawing needles but retracting syringes, IV catheters, the whole range of devices."

Instead, devices should be evaluated based on their effectiveness, in large-scale studies, in preventing needlesticks, she says. "Although no splatter is better than any splatter, the most important performance criteria of an engineered sharps safety device should be it's performance in a real-world setting in preventing needlesticks," she says.

As the Cal-OSHA appeal was pending, Kaiser and other hospitals in California continued to use the Eclipse. Anderson expressed confidence that this and other citations issued in the same Cal-OSHA inspection ultimately would be dismissed. "For people who are wondering what this all means, the best thing they can do is wait for the final resolution," he says. "Anyone who would take any action based on this stage of the process would be well advised to wait for the conclusion." ■

A new game plan for ergonomics — or a sham?

Chao promises 'course of action' by September

The fate of future ergonomics regulation may be settled just six months after Congress rescinded a broad-reaching standard that was designed to reduce musculoskeletal disorders (MSDs), the most common disabling injury in health care and other industries.

Labor Secretary **Elaine Chao** announced three "national forums" to be held in July and said she plans to "identify a course of action" on ergonomics in September. The forums will take place in Washington, DC, Chicago, and California. Exact locations had not yet been announced.

"We are bringing everyone to the table to get this important issue moving forward and resolved," Chao said in a statement. "Defining the best approach for ergonomic injuries is not a simple process, and we need everyone's voice heard in the process."

The forums will be led by an administrative law judge but will be more informal than the extensive hearings held by the U.S. Occupational Safety and Health Administration (OSHA). They are charged with addressing three questions:

1. What is an ergonomics injury? The Department of Labor is interested in establishing an accepted definition that (OSHA), employers, and

their employees can understand and apply.

2. How can (OSHA), employers, and employees determine whether an ergonomics injury was caused by work-related activities or nonwork-related activities; and, if the ergonomics injury was caused by a combination of the two, what is the appropriate response?

3. What are the most useful and cost-effective types of government involvement to address workplace ergonomics injuries (e.g., rulemaking, guidelines, "best practices," publications/conferences, technical assistance, consultations, partnerships, or combinations of such approaches)? The agency particularly invites comments on the advantages and disadvantages of each approach or combination of approaches.

Can we learn anything new?

Worker advocates immediately decried the forums as a "sham" and questioned why Chao needed more information when OSHA collected some 18,000 pages of testimony at public hearings last year.

In January, a National Academy of Sciences panel issued a report that was prepared at the request of Congress and concluded that "The weight of the evidence justifies the introduction of appropriate and selected interventions to reduce the risk of MSDs of the low back and upper extremities." **(See *Hospital Employee Health*, March 2001, p. 30.)**

"I can't believe we're going to learn anything new," says **Bill Borwegen**, MPH, occupational health and safety director of the Service Employees International Union in Washington, DC. "All I can think is this is window dressing, some type of political cover for Elaine Chao."

AFL-CIO officials charged that the questions amounted to an attack on the science of ergonomics and the definition. By changing the definition of a work-related MSD, the administration could make the problem diminish, they asserted. "The only question that needs to be answered now, but was not even asked by Chao is "What should OSHA do now to protect workers?" said an AFL-CIO statement.

Employee health professionals took a more hopeful approach. "A lot of people thought this was going to be shelved for a long time," says **Guy Fragala**, PhD, PE, CSP, director of environmental health and safety at the University of Massachusetts Medical Center in Worcester. "We want to be cautiously optimistic right now.

Five principles to guide future ergo action

According to Labor Secretary **Elaine Chao**, a "new and comprehensive approach to ergonomics" will encompass the following principles:

- ✔ **Prevention:** The approach should emphasize the prevention of injuries before they occur.
- ✔ **Sound science:** The approach should be based on the best available science and research.
- ✔ **Incentive-driven:** The approach should focus on cooperation between OSHA and employers.
- ✔ **Flexibility:** Future actions must recognize the costs of compliance to small businesses.
- ✔ **Clarity:** Any approach must include short, simple, common-sense instructions.

"Most people are agreeing that there's a problem that needs to be addressed," he says. "The disagreement comes about how we need to approach the solution."

The continued OSHA focus on ergonomics gives hospital-based employee health professionals additional justification for continuing with programs to reduce MSD injuries, notes **MaryAnn Gruden**, MSN, CRNP, NP-C, COHN-S/CM, executive president of the Association of Occupational Health Professionals (AOHP) and employee health nurse practitioner at Sewickley (PA) Valley Hospital. AOHP will seek to have some type of input into the forums, Gruden says.

RNs had 13,000 MSDs in 1999

According to the Bureau of Labor Statistics, more than 44,000 nurses' aides, orderlies, and attendants suffered from work-related MSDs in 1999, the highest number of any occupation. Registered nurses had some 13,000 MSDs. Together, they accounted for one-tenth of the nation's MSDs that led to lost workdays.

An OSHA spokesman says Chao is following through on her promise to continue to seek a way to reduce those injuries.

"No one should have ever interpreted the repeal of this rule to mean that the ergonomics issue is over and done with," he says. "The secretary of labor has been very adamant about what her approach is going to be, and she's fulfilling that." ■

Weighty problem: Obesity raises risk of MSD injuries

Hospitals seek ergo equipment for bariatric patients

The rise in obesity in America has increased risk to health care workers and created a challenge for ergonomics, as hospitals treat patients who exceed the weight limits of traditional lift equipment.

Hospitals that provide services to bariatric patients, such as gastric bypass surgery, have a clear need for special ergonomics equipment. But because morbidly obese individuals often have serious health conditions, other hospitals are increasingly likely to treat these patients.

Hospitals should be aware of the limits of their transfer equipment, usually from 300 to 500 pounds, and should have a contingency plan for coping with larger patients, says **Guy Fragala**, PhD, PE, CSP, director of environmental health and safety at the University of Massachusetts Medical Center in Worcester. "If they get a patient who comes in and they don't have the proper equipment to deal with it, they're going to have injuries," he says.

That is exactly what happened at Pitt County Memorial Hospital in Greenville, NC, when health care workers needed to care for a 600-pound patient. "We were in no way prepared. We had people injured," recalls **Patricia Dalton**, RN, COHN-S, administrator of occupational health at the hospital, which is part of the University Health Systems of Eastern Carolina. "It was just a nightmare." The hospital immediately formed an interdisciplinary team to look into the issues and equipment needed for treating the bariatric patient.

The first stumbling block is finding appropriate equipment. When Northeast Georgia Medical Center in Gainesville began offering a gastric bypass procedure, physicians and managers anticipated that patients would not exceed 450 pounds. Lift equipment had a maximum weight of 600 pounds. But the hospital has handled patients weighing 650 pounds and more. "A lot of times you can't see all the needs that are going to present themselves until you get into it," says employee health manager **Barbara Bevilaqua**, RN, COHN-S. "We're always looking for new equipment."

Ergonomics experts advise hospitals to locate a source of equipment and to have a contingency plan even if the current patient population doesn't include bariatric patients. **(See resource list, p. 92.)**

"[Health care workers] should never try to move bariatric patients without assistance technology," says **John Lloyd**, PhD(c), MErgS, CPE, director of the biomechanics research lab at the James A. Haley Veterans' Hospital in Tampa, FL. "The patient could become combative, or the situation could change in the middle of a procedure in which they become more dependent or less dependent." Although the number of such patients nationwide is small, transfers of bariatric patients are "responsible for a large number of injuries among nursing professionals," he says.

Hospitals should be aware of the weight limitations of the current lift and transfer equipment and should consider the options of renting equipment vs. buying special devices.

"There are many companies that can get the equipment to you in just a couple of hours," says Lloyd, who coordinated the development of a *Technology Resource Guide* for the Department of Verterans Affairs Patient Safety Center in Tampa, FL. Lloyd also cautions employee health professionals to determine the true weight of the patient, either from available medical records or a bed-based scale. "We had a patient at the VA nursing home in Tampa who came in and claimed to be 1,000 pounds. As a result the staff refrained from using some of the handling equipment," he says. "When we were actually able to weigh the person, we found out he was only 450, and we have equipment to handle that."

Some hospitals have turned to innovation to solve ergonomic problems.

At Pitt County Memorial, engineers in plant operations worked together with an in-house ergonomist to design a motorized patient transfer device to assist in the transfer of bariatric patients from ambulances to the hospital. The device is self-propelled and adjustable.

"We would have bought them if there had been anything on the market that worked," says Dalton. "We couldn't wait until they were designed." She also discovered a product made by AryCare of Shalotte, NC, that uses 7-inch straps beneath the patient and allows for incremental movement. The patient can then easily be turned for skin care or bed changes.

"The straps stay under the patient all the time on the bed," says **Gene Smith**, president and CEO of AryCare and designer of the product. "They are coated with lamb's wool. We've had patients on these straps for 10 years who have never had bed sores."

Ergonomic Resources for Bariatric Patients

The following is a list of products designed to accommodate bariatric patients compiled from information on individual manufacturers and the *Technology Resource Guide* of the James A. Haley Veterans' Hospital Patient Safety Center in Tampa, FL. For more information, go to: www.patientsafetycenter.com, and click on Technology Resource Guide.

- **AryLift Patient Support Systems**, 146 Wall St., P.O. Box 220, Shallotte, NC 28459. Telephone: (800) 342-9018 or (910) 754-6476. Fax: (910) 754-9249. The **AryLift** is designed to be positioned over a patient's bed and can be used to help reposition, bath, weigh, or transfer a patient. The systems use a series of 7-inch straps to allow gentle movement and repositioning. **Model 707B** ($9,880) and **Model 707A** (for home care, $8,580) can handle patients up to 500 pounds, and **Model C1000** ($28,500) is designed for use with patients up to 1,000 pounds. All the models include a portable shower hose and drain pan and a built-in scale.
- **Columbus McKinnon Corp.**, Mobility Products Division, 140 John James Audubon Parkway, Amherst, NY 14228-1197. Telephone: (800) 888-0985. Fax: (716) 689-5624. Web site: www.cmworks.com. The **CM Assist 600 Mobile Lift** ($4,975), a battery-powered mobile unit, was specially designed for bariatric patients and has a weight capacity of up to 600 pounds. It is available with a digital scale.
- **Stretchair Patient Transfer Systems**, Largo FL. Telephone: (800) 237-1162 or (727) 531-2444. Fax: (727) 536-0666. Web site: www.stretchair.com. The **MC-800 Stretchair** ($3,990), with a weight capacity of 800 pounds, can be adjusted to function as a wheelchair, stretcher, or a bed.
- **Hill-Rom Co.**, 1069 State Route 46, Batesville, IN 47006. Telephone: (800) 445-3730. Web site: www.hill-rom.com. The **Magnum II Bariatric Patient Care System** ($25,000) is a specially designed bed that can fold into a chair and can be used for transport. The bed also includes a patient scale and an X-ray cassette for upper body X-rays. It has a low air-loss surface, providing a cooling effect.
- **Patient Handling Technologies**, 603 N. Second St., Allentown, PA 18102. Telephone: (800) 471-2776 or (610) 432-8753. Fax: 610-433-9107. Web site: www.hovermatt.com. When the **HoverMatt** mattress ($3,495) is inflated, it releases air from perforation in the underside, reducing friction and making lateral transfers easier. The company asserts that a lateral transfer with a HoverMatt involves 93% less force than with a draw sheet. The mattress does not have a weight limit; larger sizes are available for obese patients. Daily rental is available for $35 to $45 a day.
- **SIZEWise Rentals**, 7924 Stateline Road, Prairie Village, Kansas 66208. Telephone: (800) 814-9389. Fax: (913) 652-6704. Web site: www.sizewiserentals.com. **Bari-Lift & Transfer** mechanical lift has weight limits of 750 and 1000 pounds. The **Bari-Rehab Platform**, a bed that can fold into a seated position, has extra width and length and a weight capacity of 1,000 pounds. SIZEWise guarantees delivery within 24 hours and will provide emergency placement of equipment within two hours (plus travel time).
- **Wheelchairs of Kansas**, 204 W. Second St., Ellis, KS 67637. Telephone: (800) 537-6454. Fax: (800) 337-2447. Web site: www.wheelchairsofkansas.com. **BCW Lift and Transfer** ($7,380) has weight capacities of 750 or 1,000 pounds. The **Mighty Rest Rehab Bed** ($6,100 to $7,700 depending on size and other factors), with a weight capacity of 1,000 pounds, has electric drive modules and can be used for transport. Other products include power chairs, wheelchairs, and chairs for use in bathing and toileting. The company specializes in products geared toward bariatric patients.

At Salem (OR) Hospital, **Mary Ellen Ramseyer**, RN, manager of employee health, discovered a HoverMatt that can be easily inflated and deflated. The mats are useful in turning or moving a patient in bed or for lateral transfers, she says. "In a normal situation, with a 200-pound person on a HoverMatt, it becomes extremely easy for one person to move that person. It doesn't take much effort at all." Custom mats can be ordered for larger beds, or nurses can use two regular-sized mats, she says.

Equipment innovations are likely to improve as companies strive to meet the needs of this portion of the patient population.Almost one-quarter of Americans are obese, or have a body-mass index above 30, according to federal health surveys. People with a body mass index above 30 are considered morbidly obese.

Health care workers also need education on how to use the equipment, good body mechanics, and team work to minimize the chance of injury, says **Rick Barker**, CPE, manager of patient and

caregiver safety for Hill-Rom in Batesville, IN, which produces a bariatric bed and chair device.

The serious health care needs of bariatric patients make the availability of lifts and transfers even more imperative, notes Dalton. "If you're going to accept these patients, whether they're coming here for that [gastric bypass] procedure or not, these are not healthy people," she says. "They might just as well show up on your doorstep for an appendectomy, heart attack, or stroke. You can't say you're not going to take them, because there's no one else to take them." ■

PEP talk: Rapid HIV tests make a quick comeback

CDC calls use of more than one rapid test ideal

Rapid HIV tests will once again allow hospitals to quickly determine the need for post-exposure prophylaxis (PEP) after needlesticks.

The Abbott Murex Single Use Diagnostic System (SUDS) HIV-1 test, the only rapid HIV test currently licensed for the U.S. market, was re-released in May. It had been withdrawn in October due to manufacturing problems.

Meanwhile, both the Centers for Disease Control and Prevention and the Food and Drug Administration (FDA) are encouraging the entry of other HIV tests into the U.S. market. About 60 rapid HIV tests are available in other countries.

By using more than one rapid HIV test, hospitals could reduce the likelihood of false positives and improve confidence in the test, says **Bernard Branson**, MD, a medical epidemiologist in CDC's division of HIV/AIDS prevention.

"CDC's interest, in general, is to have several rapid tests, preferably those that are very similar," he says. "Ultimately, [we would want] a mechanism in which we can use rapid tests in combination to improve the predictive value of a positive HIV test result."

Rapid HIV tests offer results in as little as 10 or 15 minutes, allowing clinicians to respond quickly with appropriate PEP. However, HIV experts remain concerned about false positives and unnecessary use of PEP in low-prevalence populations.

If the specificity of the test is 99.6%, that means "four out a thousand will be false positives," notes Branson. Suppose a low-prevalence area has an HIV rate of .4%, or four out of a thousand in the population. In that case, the testing of a thousand people would produce four true positives and four false positives, he explains. "Half of your positives would be false positives."

That problem can be resolved by using more than one type of rapid HIV test, he says. "If the first [test] was positive, you would retest with the second one. If they're both positive, you have a very high degree of confidence that it's truly positive."

In rare cases, a hospital might need a third rapid HIV test to resolve a discrepancy between the two, he says.

"The majority would only need to be tested once," Branson says. "A positive would need to be tested and, if those two disagreed, it would need to be tested a third time."

For the first time, the use of multiple rapid HIV tests is possible, at least for some hospitals. Trinity Biotech in Dublin, Ireland, received an Investigational Device Exemption for its Uni-Gold HIV test and is recruiting 20 hospitals to participate in the limited trial.

The Uni-Gold, which is used worldwide but has not yet been approved by the FDA, has a simple protocol and produces results in about 10 minutes, says **Ron Cruver**, Uni-Gold product development manager for Trinity Biotech USA in Jamestown, NY. In an effort to streamline the approval process, the FDA has redefined the requirements for rapid HIV tests, he says. "[The FDA] more clearly defined the number of positives and negatives you have to have and the specificity and sensitivity you have to meet," he says. "It helps the process to know exactly what's expected out of the clinical trial."

The CDC has been conducting comparative studies on six investigational tests, including the Uni-Gold. "We are making that data available to the manufacturers if they wish to use them when they submit for FDA approval," says Branson.

Hospitals also are reporting their results with the currently available SUDS test. At the University of Virginia (UVA) Health System in Charlottesville, in a low HIV-prevalence area, 884 SUDS tests performed after needlesticks from January 1999 to September 2000 produced only one false positive, says **Heidi Flanagan**, RN, HIV and bloodborne pathogen coordinator.

While the SUDS test was off the market, 132 tests of source patients using the conventional EIA (enzyme-linked immunoassay) test also produced one false positive, says Flanagan, who presented

her results at the April meeting of the Society for Healthcare Epidemiology of America. No one in the UVA health system has seroconverted to HIV following a needlestick, she says.

But the speed of the rapid test helped allay fears, Flanagan says. "It gave a measure of assurance that the source patient was negative," she says. "We didn't have to unnecessarily start post-exposure prophylaxis while we were waiting for the regular Elisa test to come back.

Even with rapid HIV tests, the CDC recommends follow-up testing with an EIA, Branson says. "We would still recommend that the blood sample was tested using conventional tests," he says. "But when you're making that PEP decision, you want to take action as soon as you can.

"The conventional tests have been around for 17 years," he explains. "Until we have a lot more experience with the [rapid tests], we want to make sure they're accurate."

(Editor's note: Information about the Uni-Gold IDE is available on the Trinity web site, www.trinitybiotech.com.) ■

CDC: Expect delays in flu vaccine distribution

While flu experts were hopeful that vaccine delays and shortages would not recur this year, the Centers for Disease Control and Prevention in Atlanta is reporting that preliminary information from manufacturers suggests that more influenza vaccine will be available this year than last year, but delays in the distribution of the vaccine will occur.

Projected distribution of influenza vaccine for 2001, based on aggregate manufacturers' estimates as of June 15, is 83.7 million doses, which would exceed actual distribution in 1999 and 2000. In addition, 53.5 million doses are projected to be available by the end of October 2001, which is twice the amount, 26.6 million doses, available at the same time last year. However, in comparison to 1999, when there was no delay, 75.8 million or 99% of the total vaccine for the 1999 season was available by the end of October. In November and December of 2001, another 30.2 million doses (36%) of the total 83.7 million are projected to be available.

The CDC and the Food and Drug Administration (FDA) stress that these are early projections from manufacturers and could change as the season progresses. The CDC is recommending that health care facilities and other vaccine providers maintain a contingency plan. Hospitals also should order their vaccine early, preferably in the spring or summer, says **Carolyn Buxton Bridges**,

CE questions

5. According to the OSHA bloodborne pathogen standard, under what circumstances are health care workers permitted to remove tube holders from blood collection devices?
   A. When the holder is removed using a mechanical device.
   B. When health care workers are using certain types of safety devices.
   C. Only when the removal is medically indicated by a procedure.
   D. It cannot be removed under any circumstances.

6. According to needlestick experts, why do some safety devices splatter blood?
   A. The activation causes a vibration or force that may cause a small amount of blood to expel from the needle.
   B. Splatter occurs due to manufacturing defects in safety devices.
   C. Splatter is a normal part of the blood collection procedure.
   D. Only conventional devices lead to splatter.

7. What precautions do ergonomics experts recommend when providing care to bariatric patients?
   A. assemble a team of at least five health care workers to perform each lift
   B. use standard ergonomic equipment but have additional health care workers available to assist
   C. purchase or rent special ergonomic equipment for bariatric patients
   D. handle bariatric patients in the same manner as other patients

8. According to Bernard Branson, MD, a medical epidemiologist in CDC's division of HIV/AIDS prevention, what is the optimal way to prevent false positives with rapid HIV tests?
   A. re-test positives with one or two other rapid tests
   B. re-test positives with the same rapid HIV test
   C. only use enzyme immunoassay until rapid HIV tests can be perfected
   D. assume all positives are true positives and start PEP

MD, a medical epidemiologist in the influenza branch of the CDC. "It appeared that providers who ordered late in the season — September, October, or November — may have had a more difficult time getting vaccine in a timely manner."

There are now just three manufacturers of vaccine, as opposed to four in previous years, Bridges notes. With a tight time frame between identifying the strains and producing vaccine, the potential for delays always exists, she says.

"Last year really illustrated the fragility of influenza vaccine supply," Bridges says. "For some people this came as a surprise. But in any year, there can be potential problems with influenza vaccine supplies because of the nature of [the development process]. There are a number of steps that have to occur in a timely manner each and every year. If any problem occurs in any step, it can throw off the timing of the vaccine and its availability."

As it turns out, the last flu season was a mild one that peaked from mid-January to early February. It was the first season since 1995-96 that was not predominated by A (H3N2) viruses, the CDC reported.[1]

"We usually see milder disease when influenza B and A (H1N1) viruses are "predominating," says Bridges.

For the 2001-2002 flu vaccine, the FDA's Vaccines and Related Biological Products Advisory Committee recommended that a trivalent vaccine containing "A/New Caledonia/20/ 99-like (H1N1), A/Moscow/10/99-like (H3N2), and B/Sichuan/3 79/99-like viruses," the CDC reported.

The CDC has extended its recommendation for the optimal timing of vaccination from October to the end of November. (Previous recommendations were for October to mid-November.)

However, the CDC advises hospitals and other

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providers to vaccinate high-risk persons and health care workers throughout the flu season, says Bridges. "It takes two weeks to develop peak antibody response after getting vaccinated, but people start to develop antibody within two days. There was some success last year to get providers to continue vaccinating."

It is too early to know the impact of last year's vaccine delay on immunization trends, she says. And she urges providers not to become complacent after a milder season.

"We have no way to predict if we're going to have a mild or severe year [this year]," Bridges says. "We also cannot predict the timing either. The best thing is to always be prepared for a severe season."

[Editor's note: For more information on influenza vaccination, see the CDC web site, www.cdc.gov.]

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1. Centers for Disease Control and Prevention. Update: Influenza Activity —- United States and Worldwide, 2000 — 01 Season, and Composition of the 2001 — 02 Influenza Vaccine. *MMWR* 2001; 50:466-470. ■

NEWS BRIEF

Industrial hygienist, ergo foe picked for top posts

President George W. Bush nominated John L. Henshaw to be assistant secretary of labor for occupational safety and health. Henshaw, an industrial hygienist, spent 20 years at the Monsanto Corp. and is currently director of environment, safety, and health for Astaris in St. Louis. Henshaw's nomination was widely lauded by occupational health professionals and worker advocates. However, Bush's nomination of Eugene Scalia for the top legal post in the Labor Department has raised concerns. Scalia, son of U.S. Supreme Court Judge Antonin Scalia, has represented the National Coalition on Ergonomics and has opposed ergonomic regulation as a labor lawyer at the Washington, DC, firm of Gibson, Dunn & Crutcher.

The U.S. Senate must confirm both nominations. Hearings on the nominations were expected to begin in July. ■

CE objectives

After reading each issue of *Hospital Employee Health*, the nurse will be able to do the following:

- identify particular clinical, administrative, or regulatory issues related to the care of hospital employees;
- describe how those issues affect health care workers, hospitals, or the health care industry in general;
- cite practical solutions to problems associated with the issue, based on overall expert guidelines from the Centers for Disease Control and Prevention, the National Institute for Occupational Safety and Health, the U.S. Occupational Safety and Health Administration, or other authorities, or based on independent recommendations from clinicians at individual institutions. ■