# SEIU's Guide to Preventing Needlestick Injuries


Third edition

**SEIU is the largest union of healthcare workers in North America, with 600,000 healthcare members working in hospitals, HMOs, nursing homes, homecare agencies and other facilities.**

**With a total of 1.3 million members in the United States, Canada, and Puerto Rico, SEIU is the third largest and fastest growing union in the AFL-CIO.**

# Introduction

Healthcare workers face a deadly risk from the use of dangerous needles each and every day—risks that are totally unnecessary. While needlestick injuries are a big problem, the solution is simple—and it's here today. Government-funded research has demonstrated that the elimination of unnecessary sharps and the use of safer needles can dramatically reduce needlestick injuries.

Yet, it is estimated that 600,000 to one million workers continue to get stuck by these older conventional needles each year. According to an SEIU-sponsored study conducted in 1994 with the National Phlebotomists Association, 24 percent of healthcare workers who drew blood were stuck by a needle in the previous year. Each year, at least 1,000 healthcare workers contract a serious infection from needlestick injuries. The majority will become infected due to the growing spread of hepatitis C, with 80 percent becoming chronic carriers. It is estimated that on average one healthcare worker per week will eventually die due to their hepatitis C infections caused by a needle injury. A similar number of workers will eventually die from their occupational exposures to HIV occurring today.

Behind these statistics are living, breathing individuals, members of our union, who live in fear of getting stuck—workers and their families who live the nightmare of waiting for months to find out whether they have been given a death sentence or another reprieve. In one hospital alone, SEIU members have reported that five workers have occupationally contracted HIV from needlestick injuries.

We all too vividly remember the ValuJet plane that went down in the Everglades in 1997. That crash was rightly considered a catastrophe. The government sent federal investigators down immediately. It was in the headlines for weeks. Think about it. Every year, a planeload's worth of healthcare workers die from needlestick injuries. Yet healthcare workers are treated as invisible . . . dying from a silent epidemic.

As we strive to improve patient care and worker safety in this era of "managed care," our struggles are becoming greater, and our need for action more urgent. The impact of "patient focused care" can be devastating on both patients and healthcare worker safety. A recent hospital study found that puncture injuries skyrocketed 127 percent after the institution fired the majority of its phlebotomists, relying on nursing staff and their assistants to conduct most blood draws.

And it is not just needlesticks. Today, it is safer to work in a mine, a factory, or a construction site than it is to work in a hospital.With healthcare restructuring in full swing, the situation is only getting worse. Employers report that while occupational injuries and illnesses throughout the United States declined by 5 percent in 1996, in hospitals the rate *jumped* by nearly 10 percent. The rate of injuries among healthcare workers has doubled over the past ten years. In fact, healthcare employers now report a higher number of injuries and illnesses than any other sector, bar none. Yet, due to lack of employer reporting, it is estimated that less than 10 percent of sharps-related

injuries are ever included in these already alarming injury and illness figures.

We have revised our needlestick booklet to again reemphasize that safer needle technology is not a dream of the future. Lifesaving, safer needles exist today. And many more safer designs are on the market since our last edition.

The foot-dragging must stop. The neglect and indifference to the safety of healthcare workers must be remedied. OSHA must begin to vigorously enforce the provision of the Bloodborne Pathogen Standard that requires employers to evaluate engineering controls such as safer needle products. NIOSH and the CDC need to collect and disseminate currently available device-specific needlestick injury data to promote the use of safer needles. The FDA needs to reconsider SEIU's original petition to alert healthcare institutions about the lifesaving potential of safer needles, and ban the use of conventional needles unless medically necessary. The Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) must begin citing hospitals that fail to evaluate and use the safer products. Needle manufacturers need to stop production of the inherently dangerous conventional needles and hospitals need to pledge to buy only the safer ones. Group purchasing organizations must encourage hospitals to purchase the latest state-of-the-art safer needle products from companies both large and small.

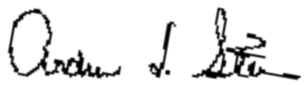
Action can save lives. Together, we ended the epidemic of hepatitis B among healthcare workers. Thanks to the Bloodborne Pathogen Standard of 1991 which requires the free availability of the hepatitis B vaccine, CDC officials report that hepatitis B infections among healthcare workers declined from 17,000 to just 400—and healthcare worker deaths from hepatitis B declined from 250 per year to an undetectable level. SEIU is proud to have originally petitioned OSHA for this standard in 1986, which has now proven to have saved the lives of thousands of healthcare workers. All of our locals and members who worked so hard in the late 1980s to push for a strong OSHA Bloodborne Disease Standard should be equally proud of the important role they played.

Working with our local unions and their healthcare worker members, we recently achieved a historic breakthrough: passage of the nation's first statewide needlestick safety law which will require all healthcare facilities in California to purchase safer needles. We are proud of this important achievement. But we will not rest until safer needles are put into the hands of every healthcare worker throughout the United States and Canada.

This booklet, originally written in 1992, has been thoroughly revised and updated to help educate and mobilize our members. To help our members to collect needlestick injury data. To actively participate in product evaluation committees. To work with hospital administrators who—after too many years of resistance—are starting to bring in the safer needles. And to file health and safety grievances and OSHA complaints when necessary.

I hope that this is the last edition of the needlestick prevention booklet which our union needs to produce.

In Unity,



Andrew L. Stern
International President
October 15, 1998



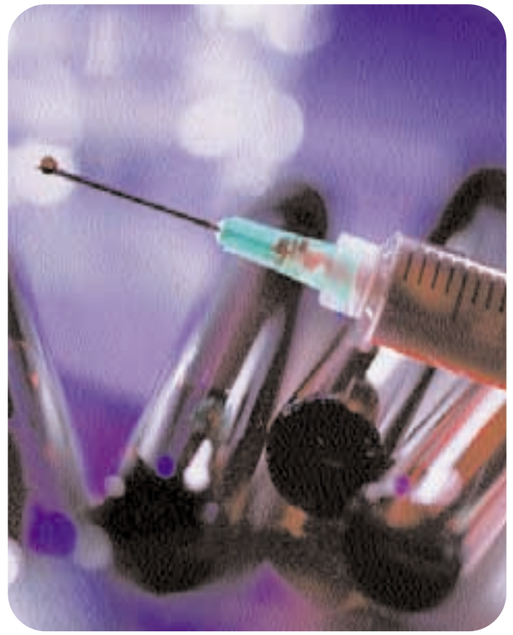
# Bloodborne Diseases

The federal government estimates that healthcare workers incur between 600,000 and 1 million needlestick injuries per year. Many of these needles have been used and are potentially contaminated. Of all the bloodborne diseases transmitted by used needles, the HIV virus has the most notorious reputation. However, as dreaded as the HIV virus can be, there are up to 20 other bloodborne diseases that can be transmitted to healthcare workers as a result of exposure to blood on the job. Of these, the diseases that pose the most serious threat to healthcare workers are hepatitis B and hepatitis C. Experts now estimate that more healthcare workers will eventually die due to complications from occupational exposure to hepatitis C than from occupational exposure to HIV.

## Hepatitis B

Historically called "the healthcare workers' disease" hepatitis B has long been recognized as an occupational hazard for healthcare workers. This virus, like other bloodborne diseases, is spread through contact with infected blood and other body fluids such as semen, saliva, and vaginal fluids. Hepatitis B is a disease that causes a number of conditions, ranging from fever, jaundice, and inflammation of the liver to life-threatening cases of cirrhosis of the liver and liver cancer.

The two most common ways that hepatitis B virus (HBV) is transmitted are through contaminated needles and sexual intercourse. Workers also can be infected through a splash of blood in the eyes, nose, or mouth, or through blood or other infectious body fluids coming in contact with a cut, sore, or other open skin. It is possible that bites that penetrate the skin can also transmit hepatitis B. Six weeks to six months after exposure, a person may develop symptoms including fatigue, nausea, joint pain, loss of appetite, fever, abdominal pain, yellowish eyes or skin, dark urine, and light-colored feces. Most people who are infected with the hepatitis B virus do not show any symptoms.



Approximately one in 10 people infected with HBV become "chronic carriers," meaning that they can transmit the virus to others through their blood or other body fluids. Chronic carriers are at greatly increased risk of liver disease. Many chronic carriers do not show symptoms and often are not aware that they can spread the virus to other people.

Prior to the introduction of the hepatitis B vaccine, the Centers for Disease Control and Prevention (CDC) estimated that 6,000 to 8,000 healthcare workers were infected with the HBV each year. Every year 200 to 300 healthcare workers died from HBV or its related illnesses. SEIU waged a successful five-year battle ending with the promulgation of the 1991 OSHA Bloodborne Disease Standard which, in part, requires employers to make the hepatitis B vaccine available free of charge to all workers at risk of exposure. Today, CDC estimates that the number of new cases of hepatitis B among healthcare workers has fallen to 400 per year. In fact, this rate is now lower than the rate for the general population. This is a clear example of how OSHA standards save workers' lives.



## More About Hepatitis B Vaccination

The vaccine for HBV is very safe, and the legal rights workers fought to have included in the OSHA standard require employers to offer the vaccine to all "at-risk" workers free of charge. The vaccine must be offered within 10 working days of a worker's hire date. The vaccine is genetically engineered, meaning that it cannot be contaminated with any other viruses since no human or animal plasma is used in its preparation. The vaccine is given in three separate doses over a six-month period of time. Approximately one in five people have mild side effects such as soreness where the vaccine is administered, fever, headache, fatigue or nausea.

The vaccine causes the body to develop antibodies against HBV. The vaccine works for nine out of 10 people. A simple blood test looking for antibodies can tell if the vaccination is working, or if another vaccination series is needed. Individuals previously infected with HBV don't need to be vaccinated because infection confers immunity. Currently, OSHA does not require employers to offer this antibody testing. However, if a worker has an exposure to blood or potentially infectious body fluids on the job, OSHA does require the employer to offer a confidential medical evaluation. SEIU advises healthcare workers to request the HBV antibody test as part of this evaluation so that it can be determined whether they are protected or if they need to receive immunoglobulin and a new series of the vaccine.



| | Hepatitis B | Hepatitis C |
|---|---|---|
| Percent of infections which result in chronic (long-term) infection | Less than 10 percent | More than 85 percent (70 percent of all infections lead to chronic liver disease) |
| Number of people in U.S. with chronic infection | 1 to 1.25 million | 3.9 million |
| This infection is transmitted to others in the following ways | Contact with infected blood<br>Sexual contact<br>Perinatal (mother to child) | Contact with infected blood (transmission via sexual contact and perinatally occurs but is much less frequent) |
| Vaccine | There is an effective vaccine that can keep you from getting this disease. | THERE IS NO VACCINE |
| Cure | None | None |
| Treatment | Treatment with Interferon alpha produces a positive response in 35 percent of cases. Some people with HBV should not receive this treatment. | Interferon alpha, taken for one year, can help 15 to 25 percent of patients. A new combination drug therapy has reduced viral levels in 46 percent of cases. |



## Hepatitis C: The Growing New Threat

Hepatitis C is caused by the hepatitis C virus (HCV). This virus was only identified in 1989, although it has been around much longer and was frequently referred to as "non-A, non-B" hepatitis. It is primarily spread through contact with infected blood. HCV can also be spread through sexual contact, but not as easily as hepatitis B or HIV. Like HBV, HCV can also lead to severe liver damage and death. But there are some very important differences between the two.

OSHA estimates that in 1995, 560 to 1,120 workers occupationally contracted HCV infection due to needlesticks and other exposures to blood and other body fluids. It is estimated that 5 to 7 percent of people infected with HCV will die as a result of their infection. Based on this information, it can be estimated that between 28 and 78 workers will eventually die every year from these exposures.

In summary, HCV is an even more serious threat to healthcare workers than HBV.

This is because it more commonly causes long-term infection, which leads to severe liver damage. It is now the leading medical reason for liver transplants. HCV is also more dangerous to healthcare workers because, unlike HBV, there is no vaccine to protect from infection. Therefore, the best way to protect workers from HCV is through the use of safer needle-bearing medical devices.

## HIV

HIV (human immunodeficiency virus) is a virus that attacks the body's defenses—the immune system. It is the virus that causes AIDS (acquired immune deficiency). AIDS occurs when the immune system has been weakened to the point that a person becomes vulnerable to a wide variety of other infections, which can eventually be fatal. In recent years there have been great advances in the treatment of HIV infection, but there is no cure. It is not known how long these new treatments will remain effective and there is the possibility that they may have serious side effects.

There is no vaccine to prevent people from being infected with HIV.

HIV can also be transmitted by exposure to contaminated blood or body fluids. It is harder to catch HIV than either hepatitis B or C. The risk of being infected with one or more of the three major bloodborne diseases, if you are exposed to blood containing the viruses, is summarized in the table below.

We do not know for certain how many healthcare workers have been infected with HIV at work, but the CDC readily admits that it does not actively seek out this information. Dr. Janine Jagger, a leading expert from the University of Virginia, and the founder of the EPINET needlestick data collection system, estimates that as many as 64 healthcare workers are occupationally HIV-infected each year.

For more information about HIV/AIDS, contact SEIU for a copy of SEIU's comprehensive 84-page book: *The AIDS/HIV Book: Information for Workers,* Fifth Edition, March 1997.

| Virus | Chance of Infection if Exposed to Blood Containing Virus |
|---|---|
| HIV | Very Low—there is a 0.3 percent (1 in 333) chance of being infected. |
| Hepatitis C (HCV) | Higher—there is a 5 percent (1 in 20) chance of being infected. |
| Hepatitis B (HBV) | Highest—there is a 6 to 30 percent (between 1 in 16 in 1 and 3) chance of being infected. |



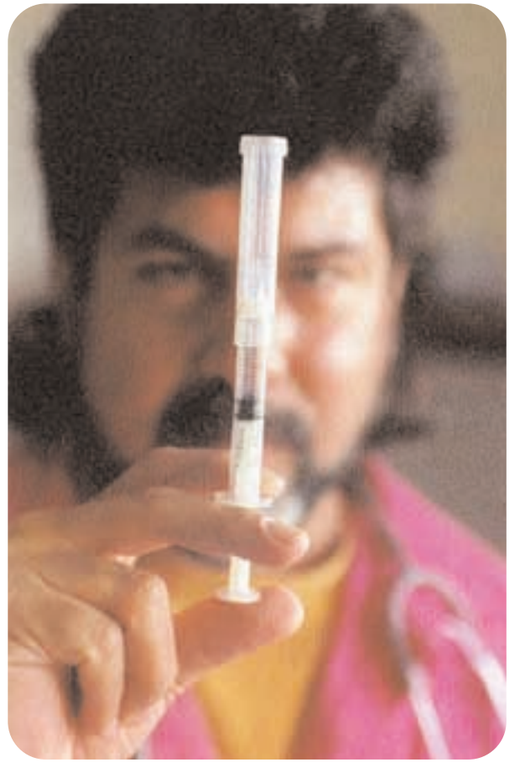
# Safer Needles

You say you haven't seen any—that your employer hasn't purchased them? Since 1984, manufacturers have successfully filed more than 1,000 patents and the FDA has reviewed and approved more than 250 types of safer needle devices. It is estimated that well over 100 safer products are now on the market.

## What is a Safer Needle Device?

Safer needle devices have safety features built into the product which prevent needlestick injuries. The term "safer needle device" is broad and includes many different types of devices, from those that have a protective shield over the needle to those that do not use needles at all. The common feature of effective safer needle devices is that they reduce the risk of needlestick injuries for healthcare workers over the conventional, inherently dangerous, older needles.

Picture an unguarded piece of machinery in an industrial workplace. Use of conventional needles without integrated safety features in the healthcare environment is no different. They are dangerous by design and must be eliminated wherever possible. Tragically, the FDA has "grandfathered" these cheaper, older "killer" needles, allowing them to be produced and sold and refusing to ban them, or even to consider evaluating their safety while they remain on the market to injure and kill more healthcare workers.



Asking healthcare workers to "work safely" around such deadly, poorly designed, obsolete products is a recipe for disaster, a situation that would not be allowed to exist in any other industry sector. The fight was won by industrial workers for adequate machine guarding in the 1960s; today, healthcare workers must win the fight for safer needles.

## Do Safer Needles Really Work?

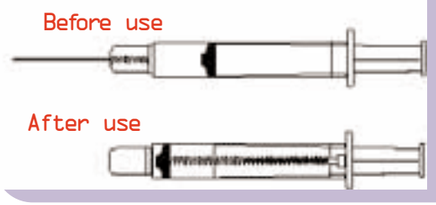
Federally funded research has shown that most needlestick injuries can be prevented by switching to needleless I.V. connectors and using devices with incorporated safety features. In recent years, the CDC sponsored a multi-hospital study and proved that safer devices can dramatically reduce needlestick injury rates. The results appeared in the January 17, 1997 issue of CDC's *Morbidity and Mortality Weekly Report*. The study found that when drawing blood, one of the highest-risk procedures, needlestick injuries could be cut 27 to 76 percent with the use of safer needles. The investigation also found that the use of safer needles did not lessen the quality of patient care. Further, the safer needles were generally accepted by healthcare workers.

## Are Some Safer Needles Safer than Others?

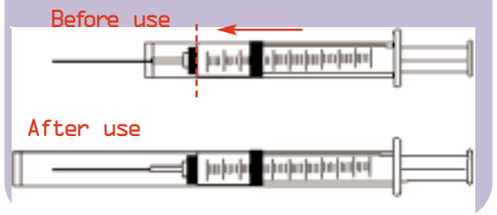
The types of safety features used in safer needle devices can be categorized according to certain aspects of the safety feature, i.e., whether the feature is "passive" or "active." *Passive* safety features remain in effect before, during and after use; healthcare workers do not have to activate them. Passive features enhance the safety design and are more likely to have a greater impact on prevention. An example of such a product would be a spring-loaded retractable syringe or self-blunting blood collection device.

*Active* devices require the healthcare worker to manually activate the safety feature. An example of such a product would be a needle with a sheath that the healthcare worker must manually pull over the used needle. Failure to do so would leave the worker unprotected. Some employers use the excuse of not buying safer needles because they claim that healthcare workers do not activate the protective sheath before disposing of the products in a needle disposal box. However, it may be entirely logical to dispose of such unsheathed needles if the disposal box is close by, especially since some cases of activation have resulted in needlestick injuries.

This is an example of a "passive" safety mechanism, where the needle retracts automatically into the barrel when the plunger is depressed after use.



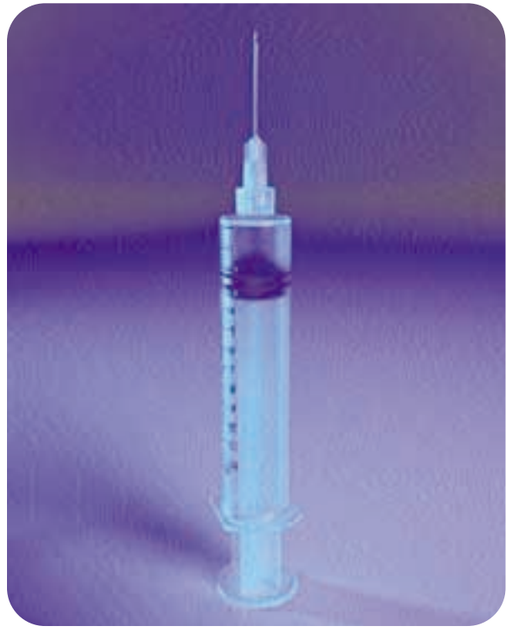

This is an example of an "active" safety mechanism, requiring the healthcare worker to pull the sheath over the needle after use.




## What Is the Role of the FDA?

Under the Safe Medical Devices Act, the FDA has the legal authority to protect both patients and healthcare workers from dangerous medical equipment. In 1991, SEIU petitioned the FDA to ban conventional, inherently dangerous, needle devices unless medically contraindicated.





In 1992, as a direct result of this petition, the FDA published a "Needleless Systems" safety alert warning about the risk of needlestick injuries from the use of hypodermic needles as a connection between two pieces of I.V. equipment. This alert was based on research that demonstrated that secondary I.V. tubing with connector needles was associated with the highest risk of needlestick injury. The use of needleless I.V. systems or systems with recessed needles to connect adjoining equipment was strongly encouraged in this alert. Today it is estimated by FDA that more than 50 percent of all hospitals use needleless I.V. connection systems.

However, to date, the FDA has refused SEIU's 1991 request to ban the older, obsolete conventional needles unless medically necessary. Instead, the FDA's sole focus has been reviewing and approving, or rejecting, new devices when a manufacturer makes safety claims about a new, "safer" product. Remarkably, while the FDA spends all its energy evaluating the safety of new safety needles, it continues to turn a "blind eye" to the much more significant hazard: evaluating the use of the traditional needles which continue to dominate the healthcare workplace. In fact, in one recent case, the FDA actually recalled a safer product with an active sheath after reports of increased rates of injury. Some employers use this sole case of a "safer" product recall to justify their failure to evaluate or purchase **any** safer needles. However, we need to remember that this is one recall out of 250 FDA-approved safer products, and we should not fall prey to this hollow argument. The irony is that the FDA has **never** evaluated any of the traditional, inherently dangerous needles on the market. If it did, experts agree that most if not all such devices would easily fail these same tests.

## What Are the Characteristics of a Safer Needle?

The FDA has suggested that needles with safety features designed to protect healthcare workers should:

- Provide a barrier between the hands and needle after use;
- Allow or require the worker's hands to remain behind the needle at all times;
- Be an integral part of the device and not an accessory;
- Be in effect before disassembly and remain in effect after disposal to protect downstream workers;
- Be simple and self-evident to operate and require little or no training to use effectively.

These are the same criteria the FDA has used to

approve more than 250 safer needle products, and to reject a similar number that did not meet these standards. *Ironically, the FDA has refused to evaluate the safety of any conventional needles with these or any other safety criteria. Such unevaluated needles should be eliminated from use.*

## Where Else Can I Find Which Safer Needles Are Best?

Many hospitals and hospital systems have conducted extensive evaluation studies of safer needle devices on their own. Kaiser Permanente, for example, is an industry leader in evaluating and purchasing safer devices. Frequently this information is available in your facility from the product evaluation, health and safety, and/or the infection control committees. The University of Virginia's International Health Care Worker Safety Center and its EPINet needlestick injury data collection system has been distributed to more than 1,500 hospitals in the United States. Currently, needlestick injury data is available online from a 77-hospital database and can be accessed free of charge at **www.med.virginia.edu/~epinet.** You can also receive further information by calling 804-982-0702.

## Can I Conduct My Own Safer Product Evaluations?

While much data already exists on which safer needles are best for which uses, frequently healthcare facilities still want to conduct their own evaluations. *Directly involving the frontline healthcare workers who will be using these safer products is critical in this evaluation process.* To help you conduct such evaluations in your workplace, we have been granted permission to reprint and have included in the next section a set of excellent "Safety Feature Evaluation Sheets" developed and recently updated by Dr. June Fisher and her staff at the Training for Development of Innovative Control Technology Project (TDICTP). Four separate sheets—for evaluating safety syringes, I.V. connectors, vacuum-tube blood collection systems, and I.V. access devices—are reproduced here, beginning with general guidelines on page 11.

## What Are My Rights to Demand Safer Needles?

Finally, it is critical to understand that under the 1991 OSHA Bloodborne Disease Standard, such evaluation of "engineering controls," such as safer needles, is legally required. But to date, unfortunately, OSHA has ignored its obligation to enforce this lifesaving provision. If your employer is **not** evaluating safer needles, you should be filing complaints with OSHA and reminding them of their duties in this area. For assistance in filing an OSHA complaint, contact SEIU.

## Additional Resources

"Safer Needle Devices: Protecting Health Care Workers," is a comprehensive manual prepared by the Occupational Safety and Health Administration, Directorate of Technical Support, Office of Occupational Health Nursing, October 1997, Washington, DC 20210. It can be accessed and downloaded from the OSHA website at **www.osha.gov** (go to the index and type in the word "Needlesticks"). You can also call OSHA at 202-219-7056.



# Guidelines for the Use of Safety Feature Evaluation Sheets[1]

## Coordinators

Determine which products are to be evaluated and provide at least four or more test samples for each individual evaluating the product. (Each evaluator should have enough samples to disassemble and test the design thoroughly.)

Set up a testing station for each type of device which allows testers to evaluate products in a simulated patient procedure. Provide training dummies (injection pads, oranges, etc.) as necessary.

Provide visual instructions and a rating system to each evaluator.

Encourage each evaluator to comment on the sheets and prioritize the questions at the end of the evaluation. This will provide a useful decision-making tool and will help alert you to specific areas of concern which may not have been covered by the questionnaire.

## Evaluators

Reenact all steps of intended or possible procedures to be performed with the device being tested.

Attempt to misuse the device and circumvent or disable the safety feature.

Answer each question, including the short answer section at the end. If you do not understand a question, please write comments directly on the sheets.

**Note:** Certain assumptions have been made in the development of these forms based on information about currently available products. We recognize the likelihood that the ideal product may not exist. TDICTP welcomes your comments on the use of these tools.

[1] Reprinted by permission of the Training for Development of Innovative Control Technology Project (TDICTP), San Francisco General Hospital, San Francisco, Calif.

## Safety Syringes Safety Feature Evaluation Form[2]

Date _____ Department _____ Occupation _____

Product _____ Number of times used _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

### During Use

| | Agree | | | Disagree | | |
|---|---|---|---|---|---|---|
| 1. The safety feature can be activated using a one-handed technique. | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. The safety feature does not obstruct vision of the tip of the sharp. | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Use of this product requires you to use the safety feature. | 1 | 2 | 3 | 4 | 5 | N/A |
| 4. This product does not require more time to use than a non-safety device. | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. The safety feature works well with a wide variety of hand sizes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. The device is easy to handle while wearing gloves. | 1 | 2 | 3 | 4 | 5 | N/A |
| 7. This device does not interfere with uses that do not require a needle. | 1 | 2 | 3 | 4 | 5 | N/A |
| 8. This device offers a good view of any aspirated fluid. | 1 | 2 | 3 | 4 | 5 | N/A |
| 9. This device will work with all required syringe and needle sizes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 10. This device provides a better alternative to traditional recapping. | 1 | 2 | 3 | 4 | 5 | N/A |

### After Use

| | | | | | | |
|---|---|---|---|---|---|---|
| 11. There is a clear and unmistakable change (audible or visible) that occurs when the safety feature is activated. | 1 | 2 | 3 | 4 | 5 | N/A |
| 12. The safety feature operates reliably. | 1 | 2 | 3 | 4 | 5 | N/A |
| 13. The exposed sharp is permanently blunted or covered after use and prior to disposal. | 1 | 2 | 3 | 4 | 5 | N/A |
| 14. This device is no more difficult to process after use than non-safety devices. | 1 | 2 | 3 | 4 | 5 | N/A |

### Training

| | | | | | | |
|---|---|---|---|---|---|---|
| 15. The user does not need extensive training for correct operation. | 1 | 2 | 3 | 4 | 5 | N/A |
| 16. The design of the device suggests proper use. | 1 | 2 | 3 | 4 | 5 | N/A |
| 17. It is not easy to skip a crucial step in the proper use of the device. | 1 | 2 | 3 | 4 | 5 | N/A |

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions which you feel should be asked regarding the safety/utility of this product?

[2] **Reprinted by permission of the Training for Development of Innovative Control Technology Project (TDICTP), San Francisco General Hospital, San Francisco, Calif.**



## Vacuum-Tube Blood Collection Systems Safety Feature Evaluation Form[3]

Date _____ Department _____ Occupation _____

Product _____ Number of times used _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

| | Agree | | | Disagree | | |
|---|---|---|---|---|---|---|
| 1. The safety feature can be activated using a one-handed technique. | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. The safety feature does not interfere with normal use of this product. | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Use of this product requires you to use the safety feature. | 1 | 2 | 3 | 4 | 5 | N/A |
| 4. This product does not require more time to use than a non-safety device. | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. The safety feature works well with a wide variety of hand sizes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. The safety feature works with a butterfly. | 1 | 2 | 3 | 4 | 5 | N/A |
| 7. A clear and unmistakable change (either audible or visible) occurs when the safety feature is activated. | 1 | 2 | 3 | 4 | 5 | N/A |
| 8. The safety feature operates reliably. | 1 | 2 | 3 | 4 | 5 | N/A |
| 9. The exposed sharp is blunted or covered after use and prior to disposal. | 1 | 2 | 3 | 4 | 5 | N/A |
| 10. The inner vacuum tube (rubber sleeved needle) does not present a danger of exposure. | 1 | 2 | 3 | 4 | 5 | N/A |
| 11. The product does not need extensive training to be operated correctly. | 1 | 2 | 3 | 4 | 5 | N/A |

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions which you feel should be asked regarding the safety/utility of this product?

[3] **Reprinted by permission of the Training for Development of Innovative Control Technology Project (TDICTP), San Francisco General Hospital, San Francisco, Calif.**

# I.V. Access Devices Safety Feature Evaluation Form[4]

Date _____ Department _____ Occupation _____

Product _____ Number of times used _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

| | Agree | | | Disagree | | |
|---|---|---|---|---|---|---|
| 1. The safety feature can be activated using a one-handed technique. | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. The safety feature does not interfere with normal use of this product. | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Use of this product requires you to use the safety feature. | 1 | 2 | 3 | 4 | 5 | N/A |
| 4. This product does not require more time to use than a non-safety device. | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. The safety feature works well with a wide variety of hand sizes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. The device allows for rapid visualization of flashback in the catheter or chamber. | 1 | 2 | 3 | 4 | 5 | N/A |
| 7. Use of this product does not increase the number of sticks to the patient. | 1 | 2 | 3 | 4 | 5 | N/A |
| 8. The product stops the flow of blood after the needle is removed from the catheter (or after the butterfly is inserted) and just prior to line connections or hep-lock capping. | 1 | 2 | 3 | 4 | 5 | N/A |
| 9. A clear and unmistakable change (either audible or visible) occurs when the safety feature is activated. | 1 | 2 | 3 | 4 | 5 | N/A |
| 10. The safety feature operates reliably. | 1 | 2 | 3 | 4 | 5 | N/A |
| 11. The exposed sharp is blunted or covered after use and prior to disposal. | 1 | 2 | 3 | 4 | 5 | N/A |
| 12. The product does not need extensive training to be operated correctly. | 1 | 2 | 3 | 4 | 5 | N/A |

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions which you feel should be asked regarding the safety/utility of this product?



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# I.V. Connectors Safety Feature Evaluation Form[5]

Date _____ Department _____ Occupation _____

Product _____ Number of times used _____

Please circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

| | Agree | | | Disagree | | |
|---|---|---|---|---|---|---|
| 1. Use of this connector eliminates the need for exposed needles in connections. | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. The safety feature does not interfere with normal use of this product. | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Use of this product requires you to use the safety feature. | 1 | 2 | 3 | 4 | 5 | N/A |
| 4. This product does not require more time to use than a non-safety device. | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. The safety feature works well with a wide variety of hand sizes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. The safety feature allows you to collect blood directly into a vacuum tube, eliminating the need for needles. | 1 | 2 | 3 | 4 | 5 | N/A |
| 7. The connector can be secured (locked) to Y-sites, hep-locks, and central lines. | 1 | 2 | 3 | 4 | 5 | N/A |
| 8. A clear and unmistakable change (either audible or visible) occurs when the safety feature is activated. | 1 | 2 | 3 | 4 | 5 | N/A |
| 9. The safety feature operates reliably. | 1 | 2 | 3 | 4 | 5 | N/A |
| 10. The exposed sharp is blunted or covered after use and prior to disposal. | 1 | 2 | 3 | 4 | 5 | N/A |
| 11. The product does not need extensive training to be operated correctly. | 1 | 2 | 3 | 4 | 5 | N/A |

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions which you feel should be asked regarding the safety/utility of this product?



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# Sharps Disposal Containers


It is important to remember that the leading cause of occupational exposure to bloodborne pathogens is needlestick injuries. The elimination of unnecessary sharps and the use of safer needle-bearing products are the primary methods used to prevent needlestick injuries.

## The Role of Sharps Disposal Containers in Preventing Needlestick Injuries

In too many healthcare facilities, sharps disposal containers are incorrectly used as a substitute for a program of eliminating sharps or for using safer devices. Instead, the consistent use of rigid sharps disposal containers in the healthcare environment is simply *complementary,* but a critical and necessary element in reducing the number of needlestick injuries. Studies indicate that placement of disposal boxes in all patient and treatment rooms consistently decreases the frequency of sharps injuries. Investigators have concluded that appropriately placed sharps disposal containers reduce needlestick injuries related to recapping of sharps by as much as 80 percent.

## A Good Sharps Disposal Container Program

Basic principles in the safe use of sharps disposal containers include: containers must be located in the immediate vicinity of where sharps are used; containers must be of sufficient size and capacity; they must be replaced when full; and they must be used by all workers who handle or encounter sharps. It is likely that no single container type meets the disposal containment needs for an entire facility, and many different products will need to be evaluated. Designated staff members should be assigned the responsibility for regular monitoring and maintenance of sharps disposal containers. The staff should frequently and routinely monitor fill levels of containers and be responsible for changing containers before they are overfilled.



## What Are Legal Standards for Sharps Disposal Containers?

Sharps disposal containers are regulated by the FDA as what are called "Class II Medical Devices," and are subject to special controls, such as performance standards, to ensure their safe and effective use. OSHA's Bloodborne Disease Standard also establishes minimum design performance elements for sharps disposal containers. Specifically, the standard requires that contaminated sharps "be discarded immediately or as soon as feasible in containers that are:

- Closeable;
- Puncture-resistant;
- Leakproof on sides and bottom; and
- Labeled or color-coded in accordance with paragraph (g)(1)(i) of the standard."

Section (g)(1)(i)(C) contains very specific requirements about the labeling of containers for contaminated sharps: "These labels shall be fluorescent orange or orange-red or predominantly so, with lettering or symbols in a contrasting color." The standard also requires that the biohazard symbol and the word "Biohazard" be displayed; note, however, that "Red bags or red containers may be substituted for labels" in section (g)(1)(i)(E).

The standard further states that "during use, containers for contaminated sharps shall be:

(i) Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (laundries);

(ii) Maintained upright throughout use; and

(iii) Replaced routinely and not be allowed to overfill."

When containers of contaminated sharps are being moved from the area of use, the standard requires that they be:

(i) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

(ii) Placed in a secondary container if leakage is possible. The second container shall be:

(A) Closeable;

(B) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping.

## Introducing a New Sharps Disposal Container into the Workplace

Before a new sharps disposal container is introduced, worker training should be conducted to address the proper use of sharps disposal containers. All workers who might come into contact with sharps should be included in the training, including maintenance and laundry service staff. Where appropriate, multilingual educational materials should be developed.

## Recommended Strategy for Selecting and Using Sharps Disposal Containers

The following strategy for selecting and using sharps disposal containers should be implemented as part of an overall needlestick injury prevention plan. Selection of a container, or combination of containers, should be based on a worksite-specific hazard analysis.

Components of a worksite-specific hazard analysis should include the following:

- Assessment of size and type of sharps to be disposed of;
- Assessment of the volume of sharps to be disposed of at each point-of-use;
- Assessment of the frequency of sharps disposal container removal, and container mounting bracket servicing, by facility maintenance staff;
- Compliance with federal, state and local regulations;
- Security requirements;
- Container transport or mobility needs;
- Clinician, and procedural, variability and movement;
- Laboratory equipment variability and movement;
- Environmental and disposal constraints.



## Evaluating and Selecting Sharps Disposal Containers

1. Front-line workers evaluating different sharps disposal containers should inspect, operate and compare containers side-by-side.
2. Representative sharps (including syringes, I.V. sets, blades, biopsy needles, pipettes, etc.), should be used to test candidate containers.
3. Evaluation facilitators should provide product manufacturer literature and visual instructions and should demonstrate proper operation of each of the containers.

For further information about Sharps Disposal Containers, contact NIOSH and request a copy of its publication: *Selecting, Evaluating, and Using Sharps Disposal Containers,* January 1998. You can request this document by phone at 1-800-35-NIOSH or visit the NIOSH website at **www.cdc.gov/niosh.**

Here is a sample evaluation tool to assess the usefulness of various sharps disposal containers based on common product design features currently available on the market. **Note:** the ideal product may not exist.



## Sharps Disposal Containers Safety Feature Evaluation Form[6]

Date: _____ Department: _____

Location: _____

Description of Container Evaluated: _____

Please circle the most appropriate answer for each questions. Not applicable (N/A) may be used if the question does not apply to this particular product.

| | Agree Disagree | |
|---|---|---|
| 1. The container's shape, its markings, or its color, imply danger which can be understood by workers, visitors, children and patients. | 1 2 3 4 5 | N/A |
| 2. The implied warning of danger can be seen from the angle at which people commonly view it (including very short people, people in wheelchairs, children, etc.). | 1 2 3 4 5 | N/A |
| 3. **For an Emergency Room:** The container can be placed in a location that is easily accessible during emergency procedures. | 1 2 3 4 5 | N/A |
| 4. The container's purpose is self-explanatory and easily understood by a worker. | 1 2 3 4 5 | N/A |
| 5. The container can accept sharps from any direction desired. | 1 2 3 4 5 | N/A |
| 6. The container can accept all sizes and shapes of sharps. | 1 2 3 4 5 | N/A |
| 7. The container is temporarily closeable, and will not spill contents. | 1 2 3 4 5 | N/A |
| 8. The container allows single-handed operation. (Only the hand holding the sharp should be near the container opening.) | 1 2 3 4 5 | N/A |
| 9. It is difficult to reach in and remove a sharp. | 1 2 3 4 5 | N/A |
| 10. Sharps can go into the container without getting caught on the opening or any molded shapes in the interior. | 1 2 3 4 5 | N/A |
| 11. The container can be placed within arm's reach of the point-of-use. | 1 2 3 4 5 | N/A |
| 12. The container is puncture-resistant. | 1 2 3 4 5 | N/A |
| 13. When the container is dropped or turned upside down(even before it is permanently closed), sharps stay inside. | 1 2 3 4 5 | N/A |
| 14. The user can determine easily, from various viewing angles, when the container is full. | 1 2 3 4 5 | N/A |
| 15. When the container is to be used free-standing (no mounting bracket), it is stable and unlikely to tip over. | 1 2 3 4 5 | N/A |

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| | Agree | | | Disagree | | |
|---|---|---|---|---|---|---|
| 16. **For an Emergency Room:** The container is large enough to accept all sizes and shapes of sharps, including 50 ml preloaded syringes. | 1 | 2 | 3 | 4 | 5 | N/A |
| 17. It is safe to close the container. (Sharps should not protrude into the path of hands attempting to close the container.) | 1 | 2 | 3 | 4 | 5 | N/A |
| 18. The container closes securely under all circumstances. | 1 | 2 | 3 | 4 | 5 | N/A |
| 19. The product has handles which allow you to safely transport a full container | 1 | 2 | 3 | 4 | 5 | N/A |
| 20. The product does not require extensive training to operate correctly. | 1 | 2 | 3 | 4 | 5 | N/A |

Of the above questions, which three are the most important to your safety when using this product?

Are there other questions which you feel should be asked regarding the safety/utility of this product?

**Please Note:** Although it is not possible to provide precise guidelines for evaluating questionnaire scores, the lower the score, the better the sharps disposal container. A priority, or value, must be assigned a criterion on a case-by-case basis. It may be useful to compare the model of sharps container currently in use with the replacement models under consideration by using the questionnaire scoring system.



# Organizing To Prevent Needlestick Injuries

A campaign to get lifesaving, safer needles into the hands of SEIU healthcare members to prevent needless suffering, illness and death requires mobilizing members to organize a worksite-based needlestick injury prevention program. In this way, fighting needlestick injuries can also build strong local unions.

The key to any organizing strategy is the development of a strong program and an active organizing committee. A needlestick injury prevention program sets concrete goals for reducing injuries, and is written and accessible to all workers, their union representatives, and OSHA.

A needlestick prevention strategy begins with the formation of a needlestick prevention committee. It is not necessary to have specific contract language authorizing the needlestick prevention committee—the committee can be formed separately from the contract.

The committee can be an independent union needlestick prevention committee or a joint labor/management committee with equal representation by labor and management . . . or ideally both can be formed. An independent committee allows representatives of the union to meet and consider needlestick injuries free from any interference by management. Whether an independent or a joint labor/management committee, the union can develop priorities and strategies for reducing needlestick injuries. The committee should have direct access to the chief executive officer of the facility or other high-level decision-maker and be given adequate resources to implement an aggressive prevention program.

A major duty of the committee is to collect and review data on needlestick injuries. In many worksites, this data is presented in the form of needlestick or exposure logs. Union members should demand that their employers provide data that includes the type of exposure, classification of the worker exposed, the worker's shift, the procedure involved, and a complete description including the name, model and manufacturer of the needle-bearing device, and whether the device was a safety or conventional product.

The needlestick prevention committee should demand representation on the facility's product evaluation committee. Most healthcare facilities have such a committee that reviews equipment before deciding which products the facility should purchase. The product evaluation committee should include workers from all departments that handle or use needles, including nursing, infection control, central supply, and housekeeping. In order for workers to have a say about what devices are purchased, they must be involved early in the process.

It is critical that the union learn about and ask for a copy of any group purchasing organization (GPO) contracts between the hospital and medical device suppliers. The selection of safer products for

review may be severely limited to products from a very few manufacturers who have signed multi-year deals with the GPO. GPOs may then financially penalize healthcare facilities that evaluate and purchase superior, safer products from companies that are locked out of these special GPO arrangements.

In addition, the needlestick prevention committee should monitor needlestick reporting to see if all needlestick injuries are being recorded. The committee should ask the employer for its list of needlestick injuries and for its OSHA 200 log. The OSHA 200 log is where employers must record all workplace injuries and illnesses that require medical treatment "beyond first aid." Employers who may resist should be pushed to record **all** needlestick injuries with a potentially contaminated needle on the OSHA 200 log, as these incidents clearly fit the definition of "more than first aid," based on the need to provide the injured worker with blood testing, post-exposure medications, and/or counseling due to the significant psychological impact of such potentially life-threatening injuries.

In reviewing the logs, the committee may find that some needlestick injuries were not reported. Every needlestick injury is a serious event. If needlestick incidents are going unreported, talk with workers and supervisors to learn why injuries are not being reported. It is critical that all needlesticks be reported so the committee can take proper steps to eliminate these injuries.

If further questions remain about the employer's needlestick data, the needlestick prevention committee should conduct its own follow-up surveys for supplemental information to determine where the highest number of needlestick injuries occurs and what devices and procedures seem to cause the greatest number of injuries. A survey can also be used to further educate the membership about issues surrounding needlestick injuries.

The committee should also:

- Confirm that the most recent CDC post-needlestick protocol is in place for hepatitis B, HIV and the growing threat of hepatitis C, and is posted prominently for all workers to see. The post-exposure protocol should include provisions on testing, counseling, prophylaxis, and worker confidentiality. Workers should be trained on the components of post-needlestick follow-up, and told who to contact for immediate treatment, 24 hours a day on all shifts.
- Educate the membership on the prevention of needlestick injuries—through membership meetings, leaflets, newsletter articles, or health and safety training sessions. Sponsor a safer devices exhibit at a local union meeting or health and safety workshop. Contact medical manufacturers to arrange for them to exhibit their devices. Most manufacturers have toll-free numbers and regional sales representatives who are eager to come to meetings to display their products.
- File class action grievances over the use of unsafe needle-bearing devices. In the early 1990s, members of SEIU Local 250 and Local 790 joined together to win a precedent-setting grievance at San Francisco General Hospital by mobilizing to demand safer devices. As a result of the union's actions, SFGH provides a safer I.V. catheter hospital-wide and formed a joint labor/management needlestick prevention committee.
- Involve members in building a strong case. Be prepared with the union's response to management's arguments. Management will often argue that safer devices are too costly. Demonstrate that the prevention of needlestick injuries and bloodborne disease infection saves money.
- File complaints with OSHA over the use of unsafe needle-bearing devices. Healthcare workers won the right to engineering controls or safer needle-bearing devices such as self-sheathing needles, with the enactment of OSHA's Bloodborne Disease Standard. The 1991 standard clearly states that employers must evaluate and implement "engineering and work practice controls" including the use of safer needles. Enforce your rights by making OSHA do its job to protect healthcare workers.
- Push for contract language on safer needles. In 1997, Local 1991 in Miami negotiated language that the employer will adopt "engineering controls" to protect workers from infectious diseases. Local 535 members in Los Angeles staged a one-day strike to fight for safer device language in 1998. See the contract language section for the complete set of clauses.
- Remember: all grievances, OSHA complaints, and contract language demands must be well documented. Involve members in collecting information, signing petitions, and demanding safer devices. Organize! Mobilize! Demand your rights to safer devices. It's your right!

## Characteristics of a Needlestick Prevention Program

| Good | Inadequate | Bad |
|---|---|---|
| Sets a concrete goal of reducing needlestick injuries. | Has no concrete goal of reducing needlestick injuries. | Denies seriousness of needlestick injury problem. |
| Has a written needlestick injury prevention program that emphasizes aggressive prevention of needlestick injuries. | Substitutes management of needlestick injuries for prevention. | Has no written program. |
| Has one labor/management needlestick prevention committee responsible for the program, with a timeline and accountability. | Has several committees working on different parts of the program. | Designates no authority at all. |
| Is backed by specific contract language and is accountable to a joint labor/management committee. | Relies on generic health and safety contract language. | Has no health and safety contract language. |
| Produces and circulates the needlestick injury log to the full committee on a regular basis. | Circulates the needlestick injury log to management only. | Has no needlestick injury log. |
| Organizes injury data to show injured workers' classifications, shifts, departments, as well as medical devices and tasks involved. | Organizes injury data to show total number of injuries only. | Has no needlestick injury log. |
| Evaluates and makes changes in work practices and medical devices based on injury data. Buys and implements safer medical devices for all workers. | Promotes changes in workers' behavior to prevent needlestick injuries. | Makes it difficult for workers to report needlestick injuries. |
| Solicits input from workers in all areas, shifts, and jobs. | Allows only token worker involvement. | Involves no front-line workers. |
| Trains workers frequently on preventing needlestick injuries. Has in-services on safer medical devices. | Trains workers only on managing needlestick injuries, focusing on what to do after a needlestick injury. | Conducts no training on needlestick injury prevention. |



# Sample Contract Language

*Note: Below is health and safety contract language with a particular emphasis on needlestick prevention developed and negotiated by two SEIU locals. To review a wider selection of more general model and sample health and safety language, as well as language specific for other workplace hazards, please refer to Chapter 6 of SEIU's Health and Safety Manual.*

## Local 1991, Miami

*This language was successfully negotiated with Jackson Memorial Hospital in October 1997.*

### SAFETY AND HEALTH

*Section 1. General Recognition*

It is the responsibility of the Employer to provide safe and healthy working conditions in all present and future installations and to enforce safe working practices. Nothing in this Agreement shall imply that the Union has undertaken or assumed any legal liability to provide a safe workplace.

*Section 2. Joint Health and Safety Committee*

A. Purpose—The purpose of the committee is to identify and investigate health and safety hazards and make recommendations on preventive measures. Additionally, the committee will assist in monitoring all ongoing health and safety programs to assure their effectiveness in preventing hazardous working conditions. Investigation and monitoring may include work site inspections as requested by the Union. The committee shall have the authority to make recommendations for safer substitutes or modifications to the new equipment, medical treatments and/or processes to the Product Review Analysis Committee. The Employer shall provide the Committee on a quarterly basis with data containing the vital information on all work-related injuries and illnesses, including but not limited to injury-on-duty quarterly, reports which will include needlestick and sharps injuries.

B. Establishment—The Employer will continue to comply with applicable federal, state, and county laws and regulations pertaining to occupational safety and health. To this end, any unsafe conditions reported by nurses will receive priority corrective action by Management. If a Registered Nurse believes a task or area is hazardous or unsafe, she will inform her immediate supervisor. If the nurse and supervisor do not agree on the matter, the nurse will have direct access to the Management personnel on that shift who has been designated by the Employer to resolve possible imminent danger hazards. The decision of this designated Management personnel shall be final. Every reasonable effort will be made to remedy such conditions as soon as possible.

C. Make-up of the Committee—The Committee shall be composed of 18 members. Nine (9) may be designated by the Employer. Nine (9) may be designated by the Union, with no more than one per patient care unit. The Committee will be co-chaired by Union and Management.

D. Meetings and Agenda—The Committee shall meet at least monthly and at other times when either side feels that there is a health and safety issue that requires immediate attention from the Committee. Each party will submit to the Chair for that meeting an agenda of topics to be discussed at least five (5) days prior to the regularly scheduled meetings. Either side may place any safety and health issue on the agenda.

*Section 3. New Practices and Procedures*

The Employer will inform the Union as soon as possible of the planned implementation of any new equipment, medical treatment and/or processes. Employees who are affected by any new equipment, medical treatment and/or processes shall be provided, prior to implementation, with the strongest feasible protection from hazards including, but not limited to, engineering controls, personal protective equipment, safer substitutes, and proper education and training.

*Section 4. Infectious Diseases*

The Employer shall provide the strongest feasible protection to nurses from occupational transmission of bloodborne and airborne infectious diseases, including but not limited to tuberculosis and HIV/AIDS, through the use of engineering controls, work practice controls, personal protective equipment, training and education and the development of a comprehensive bloodborne and airborne infectious disease program.

*Local 1991 also successfully negotiated safety and health language on asbestos in the hospital and reducing workplace violence, which is not included here.*



## Local 535, Los Angeles

*This language was drafted and proposed in current negotiations during October 1998 with Tenet Medical Center, Encino, Calif.*

**HEALTH AND SAFETY: INFECTION CONTROL**

*Section 1. General*

The Employer shall provide an annual infection control update for all employees which shall include, but not be limited to (1) transmission of bloodborne, airborne, and other infectious diseases; (2) universal precautions, respiratory precautions, and other infection control measures; and (3) post-needlestick and other blood and body fluid exposure management protocol. The Employer shall provide maximum protection to employees from occupational transmission of airborne and bloodborne infectious diseases, through the use of engineering controls, work practice controls, personal protective equipment, training and education, and the development of a comprehensive airborne infectious disease program.

*Section 2. Sharps Injury Log*

The Employer shall maintain a Sharps Injury Log and shall record each exposure incident involving a sharp on the log within 14 working days of the incident, including the following information:

A. Date and time of the exposure incident;

B. Type and brand of sharp involved in the exposure incident;

C. Frequency of use of the type and brand of sharp involved in the exposure incident;

D. Description of the exposure incident which shall include:

1. Job classification of the exposed employee;

2. Department or work area where the exposure incident occurred;

3. The procedure that the exposed employee was performing at the time of the incident;

4. How the incident occurred;

5. The body part involved in the exposure incident;

6. If the sharp had engineered sharps injury protection, whether the injury occurred before the protective mechanism was designed to be activated, during activation of the mechanism or after activation of the mechanism, if applicable;

7. If the sharp had no engineered sharps injury protection, the injured employee's opinion as to whether and how such a mechanism would have prevented the injury.

*Section 3. Methods to Prevent Transmission*

1. General. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

2. Engineering and Work Practice Controls

A. Engineering and work practice controls shall be used to eliminate or minimize employee exposure.

B. Needleless Systems. Needleless systems shall be used for:

1. Withdrawal of body fluids;
2. Administration of medication or fluids; and
3. Any other procedure involving the potential for an exposure incident for which a needleless system is available as an alternative to the use of needle devices.

C. Needle Devices. If needleless systems are not used, needles with engineered sharps injury protection shall be used for:

1. Withdrawal of body fluids;
2. Accessing a vein or artery;
3. Administration of medication or fluids; and
4. Any other procedure involving the potential for an exposure incident for which a needle with engineered sharps injury protection is available.

D. Non-needle Sharps. If sharps other than needle devices are used, or if objects that become sharp are used, these devices and objects shall include engineered sharps injury protection.

# OSHA Bloodborne Diseases Standard Checklist

In December 1991, after a five-year battle, SEIU won important protections for healthcare workers at potential risk of occupational exposure to hepatitis B, hepatitis C, HIV/AIDS, and other bloodborne diseases, when OSHA finally issued its Bloodborne Disease Standard.

The following checklist can be used to evaluate whether or not your employer is following OSHA's requirements for protecting workers from bloodborne diseases:

The employer has a written exposure control plan, which contains at least the following:

- ❑ A list of all jobs in which workers are exposed to blood and other potential infectious materials.
- ❑ A list of all tasks in which workers can be exposed.
- ❑ How the employer will implement the standard.
- ❑ The exposure control plan is accessible to workers and to OSHA.
- ❑ The exposure control plan is reviewed and updated at least annually.

*Note: SEIU believes that the employer cannot meet its obligation to review and update its plan unless it keeps detailed records of every needlestick and sharps injury. At a minimum these records should include the date and time of the exposure incident, brand and type of device involved in the incident, whether the device was a "safety" device, frequency with which this brand and type of device is used in the facility, a detailed description of the exposure incident, and the employee's opinion about whether any other controls could have prevented the injury.*

- ❑ Universal precautions are followed. This means that all blood and body fluids are treated as though they were infected with HIV, hepatitis B and C.
- ❑ Hand washing sinks are available.

- ❑ Engineering and work practice controls are used to eliminate or minimize worker exposure. Engineering controls (e.g., sharps disposal containers and safer medical devices) isolate or remove infectious hazards from the workplace. Some examples of safer devices are retractable or self-blunting needles, needleless I.V. connection systems, luer locks and needle-protected systems.
- ❑ Engineering controls are examined regularly and replaced with better, safer devices as they are approved by the FDA and become available in the marketplace.
- ❑ Because recapping needles is dangerous, OSHA has allowed recapping only when there are no alternatives to self-sheathing needles, such as procedures like blood gas analysis.

*Note: In these circumstances, OSHA will allow a mechanical recapping device or a safe one-handed recapping method. SEIU is opposed to one-handed recapping techniques because recapping needles is dangerous. Only mechanical recapping devices should be used if one must recap.*



- ❑ Personal protective equipment such as gloves, gowns, masks, mouthpieces and resuscitation bags are free to workers, in the right sizes, and readily available.
- ❑ The employer cleans, repairs, and replaces personal protective equipment when needed.
- ❑ The employer provides glove liners, and powderless gloves, or non-latex alternatives such as nitrile or vinyl gloves to prevent latex allergies.

- ❑ Sharps containers are easily accessible to all workers and are as close as possible to the areas where sharps are used, including patient care, laundry, and housekeeping areas.
- ❑ The containers are kept upright throughout use, replaced routinely, and not allowed to overfill.
- ❑ OSHA did not mandate, but SEIU believes that sharps containers should be wholly disposable.
- ❑ Contaminated laundry is handled as little as possible and bagged where it was used.
- ❑ Contaminated laundry is not rinsed where it was used.
- ❑ Contaminated laundry which is sent off-site is placed in bags or containers which are labeled or color-coded with appropriate biohazard warnings.

- ❑ The employer maintains a schedule for proper cleaning, disinfection and sterilization of work surfaces (i.e., floors, walls) and contaminated equipment.
- ❑ Sterilizers should be registered with the EPA and have the highest level of affinity for destroying all viruses, including HBV, HCV, HIV and TB.
- ❑ Contaminated broken glass must be picked up with tools, and never with the hands.

- ❑ The hepatitis B vaccine is available within 10 working days of initial assignment to all employees who have occupational exposure. The vaccine is free to the worker and available at a reasonable time and place.
- ❑ Workers choosing not to take the vaccine must sign a statement declining the vaccine. (The employer must still provide vaccine if the worker asks for it later.)
- ❑ Confidential post-exposure follow-up procedures for HIV, hepatitis B and hepatitis C are provided free to workers who have had an exposure incident.

- ❑ Follow-up includes a confidential medical evaluation documenting how the exposure incident occurred, identifying and testing the source patient if feasible, testing the exposed worker's blood with consent, post-exposure treatment, counseling, and evaluation of reported illnesses. (See "If You Are Exposed . . ." page 30, for post-exposure treatment.)
- ❑ A worker's consent is given before collecting his or her blood for testing after an exposure incident.

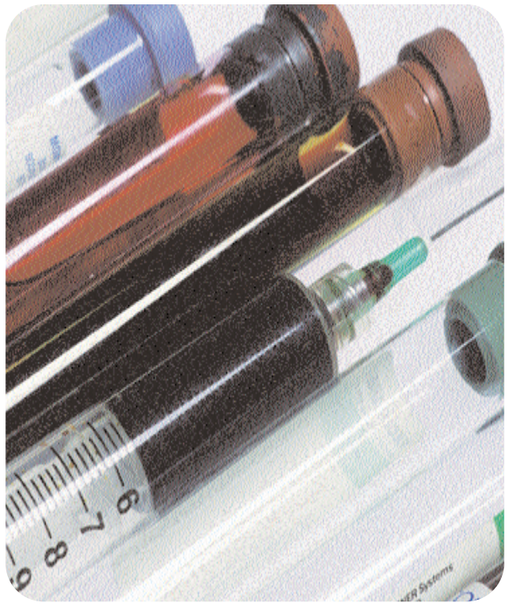
- ❑ Training on the standard is provided when a worker is first hired, when tasks or procedures are changed, and at least annually thereafter.
- ❑ Training materials are understandable in language and content to all workers.
- ❑ Training includes an interactive question-and-answer session with the trainer.
- ❑ The employer maintains workers' medical records for the duration of employment plus 30 years.
- ❑ Medical records are kept confidential, but are made available to the worker, anyone with written consent of the worker, OSHA, and NIOSH.
- ❑ Training records are maintained for three years.

# If You Are Exposed to Blood or Body Fluids

Obviously, most needlestick injuries could be prevented if employers used safer needle devices or needleless systems. When workers do suffer a needlestick injury or are splashed with blood or body fluids, the employer must respond promptly with an evaluation, counseling, and treatment if appropriate. OSHA requires that employers follow the U.S. Public Health Service guidelines for workers who have been exposed to HIV or hepatitis at work.

As time is of the utmost importance to maximize the effectiveness of various medical treatments, it is essential to report a needlestick or blood exposure to your employer immediately. The employer should make every effort to determine whether the patient who is the source of the blood has HIV or hepatitis B or C. In some states it is illegal to test a patient's blood without their consent, but in most cases, their health status is already contained in their medical records.





## If You Are Exposed to HIV

If you have been exposed to blood containing HIV or blood from a source whose HIV status is unknown, you should be evaluated as soon as possible (within two hours) by a clinician familiar with post-exposure evaluation and treatment. You should have a baseline blood test. The clinician needs to assess the degree of risk from your exposure to HIV so that decisions can be made as to whether to recommend giving you drugs to fight the virus. There are several factors in determining whether to recommend treatment such as: 1) How severe the needlestick—how much blood and how deep? Severe exposure is more likely if stuck by a hollow needle versus solid needle, it is a deep puncture, there is visible blood or it was a stick by a needle that was used in patient's artery or vein; and 2) How much HIV was in the source patient's blood (high versus low titer)?

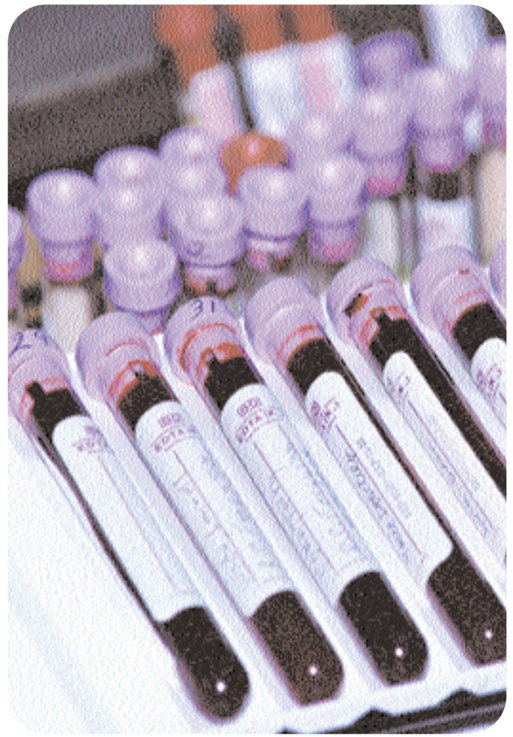
Most exposures to HIV positive blood as a result of needlesticks or other sharps injuries warrant at least consideration of anti-HIV drugs. There are several different types of treatment, depending on the level of risk in your exposure. The important thing is that you are evaluated promptly by someone familiar with treatment of occupational exposure and that they explain to you the reasons for their recommendation. The drugs used to fight HIV may have significant side effects. The person evaluating you should explain the risks of taking, or not taking, anti-HIV drugs. If you have your own questions about proper treatment, are concerned that your employer is not taking your exposure seriously, or you do not believe that you are receiving the best treatment and/or advice, you should call the federally funded **CDC's National Clinician's HIV Postexposure Treatment Hotline at (888) 448-4911.**

Again, timing is of utmost importance. According to the U.S. Public Health Service, when drugs to fight HIV are called for, they should be started "within a few hours" of the exposure. Employers need to be able to offer evaluation, counseling and treatment "during all working hours, including nights and weekends."

If you have been exposed to HIV at work, the U.S. Public Health Service recommends that your blood be tested at the time of exposure and periodically over the next six months (e.g., 6 weeks, 12 weeks and 6 months). The first (baseline) blood test doesn't tell you whether you have been infected as a result of your exposure. It shows whether you were infected before the incident. Even if you feel confident that you did not have HIV before, you should have the test. It can serve as proof that any infection that shows up in the following months was acquired at work. This can be very important if you need to file for workers' compensation or take other legal action.

SEIU recommends that you also have your blood tested one year after exposure, since there have been cases of healthcare workers converting (testing positive for antibodies, which demonstrates infection) more than six months after they were exposed.

Once you have been exposed to HIV at work, you should be advised to practice safe sex or abstinence and to avoid donating blood until you are certain that you are not infected. This is so that you do not pass along the disease to others. Unless your job entails performing invasive medical procedures, your work responsibilities do not need to be assessed further to avoid infecting patients.



## If You Are Exposed to Hepatitis C at Work

If you are exposed to blood from a person with hepatitis C, you should have a baseline test of your blood at the time of exposure and follow-up blood testing as in the case of exposure to HIV. Unfortunately, at the current time there are no drugs or vaccines that can help your body fight off the HCV infection, but it is still very important to know if you have been infected. If you do become infected, you should receive counseling on the effects of HCV infection and how you can avoid passing the infection on to others. You should not donate blood, semen or body tissue if you think you might be infected. You should not share razors or toothbrushes with anyone. You should adopt safe sex practices to avoid infecting others.

If you develop chronic (long-term) hepatitis C infection, there are drugs available which may help reduce the amount of virus in your body. Consult your healthcare provider.

## If You Are Exposed to Hepatitis B at Work

If you suffer an exposure to blood or body fluids that may contain hepatitis B (HBV) and you have not been vaccinated, you should begin the vaccine as soon as possible. If the blood is known to contain HBV, you should also receive a shot of immune globulin within 24 hours of the exposure.

If you have been vaccinated and are exposed to blood that contains or is suspected of containing HBV, there are several treatment options. The proper treatment depends on whether your body responded to the vaccine by producing enough antibodies.

Whether you are exposed to HIV, HCV or HBV, all post-exposure testing, evaluation, counseling and treatment must be provided free of charge. It should be delivered promptly and the results should be kept confidential.

| Antibody Status of the Exposed Healthcare Worker | Treatment Recommended by the U.S. Public Health Service After Exposure, or Suspected Exposure, to HBV |
|---|---|
| **Unvaccinated** | Immune globulin (within 24 hours of exposure) and begin vaccination series |
| **Previously Vaccinated** | |
| Known responder (your body produced sufficient antibodies) | No treatment |
| Known non-responder (your test does not show enough antibodies in your blood) | Either 2 shots of immune globulin, or 1 shot of immune globulin and initiate revaccination |
| Antibody response unknown | Test exposed healthcare worker for antibodies:<br>If antibodies are adequate, no treatment is called for<br>If antibodies are not adequate and the source is known HBV carrier, then 1 shot of immune globulin plus a vaccine booster<br>If antibodies are not adequate and it is not known whether the source was HBV positive, then initiate revaccination |

## Resources


Centers for Disease Control and Prevention, "Public Health Service Guidelines for the Management of Health-Care Worker Exposures to HIV and Recommendations for Postexposure Prophylaxis," *Morbidity and Mortality Weekly Report,* Recommendations and Reports Vol. 47, No. RR-7, May 15, 1998.

Centers for Disease Control and Prevention, "Recommendations for Follow-Up of Health-Care Workers After Occupational Exposure to Hepatitis C Virus," *Morbidity and Mortality Weekly Report,* Vol. 46, No. 26, July 4, 1997, pp. 603-606.

Centers for Disease Control and Prevention, "Immunization of Health-Care Workers: Recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Hospital Infection Control Practices Advisory Committee (HICPAC)," *Morbidity and Mortality Weekly Report,* Recommendations and Reports Vol. 46, No. RR-18, December 26, 1997, pp. 22-23.


**Note:** All of these reports can be found on the CDC's Website at **www.cdc.gov**

# Safer Medical Device Products and Manufacturers

## MEDICATION DELIVERY

### DISPOSABLE SYRINGE INJECTION

(1) Safety-Lok Syringe, Becton Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762. [Sliding sleeve.] *Also insulin syringe with safety-lok.*

(2) Monoject Safety Syringe, Kendall/Sherwood/Davis & Geck, Manfield, Mass., (800) 962-9888. [Sliding sleeve.] *Also insulin syringe with safety feature.*

(3) SteriMatic Safety Needle, Stepic Medical, Long Island City, N.Y., (800) 456-9987. [Sliding sleeve.]

(4) Safe-Point Needle Cover System, North American Medical Products, Schenectady, N.Y., (800) 488-6267.

(5) The Guardian, Frontline Medical Products, Ventura, Calif., (805) 658-1601. [Retracting device.]

(6) VanishPoint Syringe, Retractable Technologies, Inc., Lewisville, Texas, (888) 703-1010. [Retracting device.]

(7) Zero-Stik Safety Syringe, New Medical Technology, Inc., Zionsville, Ind. (800) 522-1512 [Retracting device]

### NEEDLELESS INJECTION

(1) Biojector Jet Injection System, Bioject Inc., Portland, Ore. (800) 683-7221.

### PREFILLED CARTRIDGE SYRINGE INJECTION

(1) Safe-Point Needle-cover System, North American Medical Products, Schenectady, N.Y., (800) 488-6267.

## I.V. ADMINISTRATION

### I.V. NEEDLELESS ADMINISTRATION

(1) SAFSITE I.V. Access System, B. Braun/McGaw, Irvine, Calif., (800) 624-2948.

(2) Interlink I.V. Access System, Baxter Healthcare Corporation, Deerfield, Ill., (800) 933-0303.

(3) Clave Connector, ICU Medical, Inc., San Clemente, Calif., (800) 824-7890. [Luer-lock connector.] (This device is co-marketed with Abbott Laboratories.)

(4) AccuSlide Flow Regulator with Smartsite Needleless System, Alaris Medical Systems, Inc., San Diego, Calif., (800) 482-4822.

### I.V. PROTECTED NEEDLE ADMINISTRATION

(1) Centurion Kleen-Needle System, Tri-State Hospital Supply Corporation, Howell, Mich., (800) 248-4058.



(2) Autogard I.V. Needle, Becton Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762.

(3) Baxter Protective Needle Lock, Baxter Healthcare Corporation, Deerfield, Ill., (800) 933-0303.

(4) ICU Click-Lock, ICU Medical, Inc., San Clemente, Calif., (800) 824-7890.

(5) McGaw Protected Needle, B. Braun/McGaw, Inc., Irvine, Calif., (800) 624-2948.

(6) LifeShield Connector and LifeShield Blunt Cannula, Abbott Laboratories, Abbott Park, Ill., (800) 222-6883.

(7) Saf-T Clik I.V. Connection System, Winfield Industries, San Diego, Calif., (800) 321-5493.

## VASCULAR ACCESS BLOOD-DRAWING

### WINGED, STEEL-NEEDLE I.V. (BUTTERFLY)

(1) Shamrock Safety Blood Collection Set, Winfield Industries, San Diego, Calif., (800) 321-5493. [Sliding sleeve.]

(2) Safety-Lok Blood Collection Set, Becton-Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762.

(3) Monoject Angel Wing Safety Needle System, Kendall/Sherwood/Davis & Geck, Manfield, Mass., (800) 962-9888.

(4) PUNCTUR-GUARD Winged Set for Blood Collection, Bio-Plexus, Vernon, Conn., (800) 223-0010. [Needle is blunted after use.]

### VACUUM-TUBE PHLEBOTOMY

(1) Vacutainer Brand Safety-Lok Needle Holder, Becton-Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762. [Sliding sleeve.] Hemogard Closure—plastic shield over the rubber stopper.

(2) Saf-T Clik, Winfield Industries, San Diego, Calif., (800) 321-5493. [Sliding sleeve.]

(3) PUNCTUR-GUARD Blood Collection Needle, Bio-Plexus, Vernon, Conn., (800) 223-0010. [Needle is blunted after use.]

(4) Safe-Point M-D (Multi-Draw) Blood Collection Needle and Needle Guard, North American Medical Products, Inc., Schenectady, N.Y., (800) 488-6267. Safe-Point Vacutainer Needle-cover System.

(5) VanishPoint Blood Collection Tube Holder, Retractable Technologies, Inc., Lewisville, Texas, (888) 703-1010.

### ARTERIAL BLOOD-GAS

(1) Accu-Vent with Needle-Pro[Needle Protection Device], SIMS Portex, Inc., Keene, N.H., (800) 258-5361.

### IN-LINE BLOOD COLLECTION

(1) Safedraw Closed-loop Blood Sampling System, Becton Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762.

(2) Medex Secure System, Medex, Hilliard, Ohio (800) 848-1757.

(3) VAMP: Venous/Arterial Blood Management Protection System, Baxter Cardio-vascular Group, Irvine, Calif., (800) 424-3278.

### I.V. CATHETER (STYLET)

(1) PROTECTIV I.V. Catheter Safety System, Johnson & Johnson, Inc., Arlington, Texas, (800) 423-5850.

(2) Insyte AutoGuard, Becton-Dickinson, Franklin Lakes, N.J., (888) 237-2762. [Shielded I.V. catheter without wings.] *Safety E-Z Set, [see above]. [Shielded I.V. catheter with wings.] Safety Intima, [see above]. [Shielded I.V. catheter with wings.]*

## PUNCTURE/INCISION ADMINISTRATION

(1) Glucolet 2 Automatic Lancing Device, Bayer Corporation, Elkhart, Ind., (800) 348-8100.

(2) Microtainer Safety Flow Lancet, Becton Dickinson and Co., Franklin Lakes, N.J., (888) 237-2762.

(3) Surgicutt, ITC (International Technidyne Corporation), Edison, N.J., (800) 631-5945. [Arm incision for adults, children and infants.]

(4) Tenderfoot, [see above]. [Heel incision for infants.]

(5) Tenderlett, [see above]. [Finger incision for adults, children and infants.]

(6) Monoject Monolettor Safety Lancet, Kendall/Sherwood/Davis & Geck, Manfield, Mass., (800) 962-9888.

(7) Unistik Lancet, Owen Mumford, Marietta, Ga., (800) 421-6936.

## HEMATOCRIT TESTING

(1) SafeCrit Plastic Hematocrit Tube, StatSpin Inc., Norwood, Mass., (800) 782-8774. [Substitutes plastic, in place of a glass tube.]

(2) HemoCue Hemoglobin system, HemoCue, Inc., Mission Viejo, Calif., (800) 323-1674. [This system eliminates the need for a hematocrit tube.]

## SURGICAL NEEDLES

(1) Ethiguard Needle System, Johnson & Johnson, Inc., Piscataway, N.J., (800) 255-2500. [This system features a blunt-tipped needle for purposes of suturing.]]

## IRRIGATION SPLASH SHIELD

(1) Zerowet Splashield, Zerowet, Inc., Palos Verdes Peninsula, Calif., (800) 438-0938. [Eliminates use of needles in debridement procedures, and protects against splashing of body fluids.]

**This list was revised in September 1998 and is not complete. This list will be updated periodically. These devices have not been evaluated by SEIU for their safety performance or efficacy. If you know of additional medical devices which would prevent needlestick injuries or other exposures to body fluids, or if you have comments about any of the products listed here, please contact the SEIU Health and Safety Director in Washington, D.C.*