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Rationing, price gouging plague hospital influenza vaccine plans

CDC tries to redistribute doses to priority groups

Hospitals began rationing the flu vaccine as the sudden shortage threw their annual fall campaigns into chaos. The complete loss of half the nation's flu vaccine supply highlighted the fragility of a core public health function: vaccinating the population against a potentially deadly disease. By luck, hospitals that ordered from the "right" manufacturer received their complete vaccine stock, while others had none.

By late October, the Centers for Disease Control and Prevention (CDC) in Atlanta sought to reassure health care providers that more vaccine would become available and would be released through January 2005.

State and local health departments will help redistribute vaccine to those who need it most, including hospitals and long-term care facilities, the CDC announced. Agency officials said they gained unprecedented access to shipment information from Aventis Pasteur of Swiftwater, PA, to learn who received the 33 million doses shipped before the vaccine supply shortage occurred and who was scheduled to receive the remaining

Prepare your hospital for a very unusual flu season

Vaccine shortages may wreak havoc with hospital EDs, absenteeism

With the unprecedented shortage of influenza vaccine this flu season, hospitals are scrambling to prepare for what may be a record number of flu patients presenting to their already overcrowded emergency departments (EDs) and for staff shortages due to record absenteeism. After almost half of the United States' planned vaccine supply was contaminated, high-risk candidates — including the very young, the elderly, those with chronic illnesses, pregnant women, the immunocompromised, and health care workers with direct patient care — have been identified as those to receive the vaccine.

In response to the national shortage of vaccine, Thomson American

(Continued on page 160)

Redistributing Vaccine Policy

The Food and Drug Administration has authorized hospitals and other health care entities to redistribute flu vaccine due to the shortage. The agency has advised hospitals to collect the following information when redistributing vaccine: vaccine brand name, manufacturer and distributor, lot number, number of doses transferred, and recipient's name and address.

Information on proper handling, storage, and shipping is available from www.cdc.gov/nip/publications/vac_mgt_book.htm#flu. ■

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22.4 million doses. Hospitals and long-term care facilities are on a priority list and may receive up to 100% of their orders — although the doses are to be used only with health care workers in direct patient care and high-risk patients, CDC officials said. **(See box, at left.)**

"If you don't have enough vaccine, let your distributor know and let the health department know," advises **Lance Rodewald**, MD, director of CDC's Immunization Services Division.

Meanwhile, federal authorities were investigating the contamination and quality problems that led British regulators to shut down the Liverpool facility of Chiron Corp. of Emeryville, CA. Chiron had been expected to provide 46 million to 48 million doses, about half the American supply, but all shipments were halted as of Oct. 5.

In October, the mathematics of vaccine supply changed constantly. Aventis was able to increase its vaccine yield by 8 million doses, and MedImmune, which produces FluMist, the vaccine that uses the live attenuated virus, increased its supply by 2 million doses. **(See related article, p. 151.)**

By December or January, the Food and Drug Administration (FDA) may arrange for the importation of "a very limited number of doses," or about a million, from foreign manufacturers under guidelines for investigational drugs, said **Norman Baylor**, PhD, acting deputy director and associate director for regulatory policy in the FDA's Office of Vaccines Research Review in Rockville, MD. He spoke at a recent meeting of the Advisory Committee on Immunization Practices, a CDC expert panel.

The CDC maintains a stockpile of 4.5 million vaccine doses, which it will distribute to high-risk populations. the CDC also has a stockpile of Tamiflu and Rimantadine, antivirals that can be used as prophylaxis or to treat the flu.

Meanwhile, the CDC set priorities for the doses, including the Department of Defense, the Vaccines for Children program, the Department of Veterans Affairs medical centers, and long-term and acute-care facilities. All state health departments will receive at least half of the doses they had ordered from Chiron, said CDC director **Julie L. Gerberding**, MD, MPH.

"We're doing our very best to get the product to the people who need it the most," she said.

For some hospitals, those words were hardly reassuring. Those who had ordered from Chiron engaged in a mad scramble to find available vaccine. For example, Baystate Health System in Springfield, MA, placed 90% of its order for 17,000

doses with Chiron, which meant it had 1,700 doses for patients, employees, and physician offices.

When the Chiron news broke, the three-hospital health system's pharmacy director immediately began searching for supply. She found a distributor who offered vaccine at $26 a dose — far higher than the usual $8 to $10 per-dose cost. She checked with her vice president and got the go-ahead. But by the time she called back, the price had risen to $60 a dose.

"It raises tremendous questions about our public health system in this country and how well prepared we are to deal with something like this," says **James Garb**, MD, Baystate director of occupational health and safety.

The hospital locked up its available vaccine

Forget the shot, and take a whiff of vaccine

FluMist supply, demand both rise

It's not a shot in the arm, but the nasal flu vaccine will be a new form of relief to some hospitals seeking vaccine supply.

MedImmune of Gaithersburg, MD, announced it would be able to produce about 2 million extra doses of FluMist by late November, in addition to the 1.1 million already available.

Because FluMist is not approved for some high-risk groups, such as the elderly, chronically ill, or children younger than 5, its supply will not be redirected by the Centers for Disease Control and Prevention. **(See related cover story.)**

Hospitals have been slow to embrace the new vaccine product, which is a live vaccine administered nasally. It is approved for healthy people ages 5 to 49, which means hospitals would need to screen health care workers for health risks.

Until the announcement that Chiron Corp. would not be providing any flu vaccine this year, MedImmune was donating doses to hospitals. That program halted immediately, and MedImmune said it was "only providing doses for hospitals that had previously applied or enrolled in the program."

Instead, hospitals that had avoided using the live vaccine began calling in orders. "There was very strong interest in the [FluMist] program even before the Chiron announcement. That interest has gone up and has gone up markedly," says **Jeffrey Stoddard**, MD, senior director of medical affairs at MedImmune.

Last year, questions about the live vaccine combined with its high price led to low demand for FluMist, as only 450,000 doses were administered out of 5 million produced. This year, MedImmune lowered the price from $46 per dose to $23.50 for returnable doses and $16 for nonreturnable doses and announced it would supply between 1 million and 2 million doses. It initially had 1.1 million available, but was able to use frozen bulk vaccine to produce an additional million doses.

Some employee health professionals questioned whether health care workers taking FluMist would need to be furloughed. But the recommendations from the Advisory Committee on Immunization Practices (ACIP) stated that only health care workers with direct patient contact with "severely immunocompromised patients," such as those undergoing bone marrow transplant, should refrain from caring for those patients for seven days. "No preference exists for inactivated vaccine use by health care workers or other persons who have close contact with persons with lesser degrees of immunosuppression," ACIP explained.[1]

"There's been a lot of misunderstanding about the safety profile of our vaccine," says Stoddard. "The safety profile of FluMist is very solid. There really has been consistent evidence of safety of this vaccine shown again and again in multiple clinical trials. The apprehension and misunderstanding relates mostly to theoretical risks that people get concerned about with any new vaccine and particularly live attenuated vaccines."

Some employee health professionals have expressed concern about studies that showed people using FluMist could shed virus particles. In one day-care study, one child transmitted the virus to another, although the second child did not develop influenza.[1]

The virus is cold-adapted and cannot replicate in the respiratory system, says Stoddard. "In that study, we showed that there were no adverse events. That child basically got a partial free vaccine," he says. "You'll only find that in a percentage of people who get that vaccine, and you'll only find it for a short period of time."

William Schaffner, MD, chair of the department of preventive medicine at Vanderbilt University in Nashville, TN, and a representative of the Infectious Disease Society of America on ACIP, predicts that FluMist eventually will gain acceptance for healthy health care workers. "I think FluMist has very real potential."

MedImmune is continuing studies and hopes to eventually expand the FluMist approval to children younger than 5 and adults 50 to 64, Stoddard says.

Reference

1. Prevention and control of influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2004; 53(RR06):1-40. ■

and began debating how to allocate the doses. Employees stopped Garb in the hallway, asking if they would be eligible to receive the vaccine. For example, one told Garb he was on a list for a lung transplant.

"If they're not direct patient care providers, I apologize and tell them we're not going to be able to provide it," he says.

In administering the vaccine, the hospital will have to balance between vulnerable patients and the health care workers who care for them. "The ethical dilemma is very tricky of how much you allocate to patients and how much you allocate to health care providers," he says. "I don't believe there's a right or wrong answer, and reasonable people can disagree on this issue."

Raymond Strikas, MD, a medical officer in the Immunization Services Division of CDC, emphasized in an Internet-based conference that protecting health care workers is an important part of protecting high-risk patients.

"In this shortage situation, vaccination of health care workers becomes even more critical," he said.

Paradoxically, many hospitals had geared up this fall to make a major push to promote flu vaccination among health care workers. Only about 38% of health care workers are vaccinated each year, according to the 2002 National Health Interview Survey. Strikas called that "a very sad statistic."

Greenville (SC) Memorial Hospital had planned to promote influenza vaccination heavily among its health care workers, as the hospital sought 100% vaccination. It could have proceeded; all its supply came from Aventis. However, the hospital plans to share some of its doses with area hospitals that ended up with none.

"We are limiting who gets it based on the CDC guidelines," says **Connie Steed**, RN, CIC, director of infection control. "We will be sharing some of it with other facilities and physician practices who were unfortunate enough to order from the company that has the problem. We feel very strongly that it's the right thing to do for the community."

Only employees in direct patient care or who have risk factors will receive the vaccine, Steed says. That includes employees who transport patients, but not housekeeping, engineering, or dietary personnel. **(For a copy of the CDC recommendations, see bottom box, p. 153.)**

"I am the director of infection control, and I will not be receiving flu vaccine because I do not have direct patient contact," she says. "Am I concerned about that? I am very willing to give up my vaccine to give it to someone who needs it more than I do."

The hospital also will emphasize other measures, such as hand hygiene and cough etiquette, and will urge employees not to come to work sick, she says.

(Continued on page 154)

Can you get more out of the flu vaccine?

New techniques not possible this year

Faced with a severe shortage of influenza vaccine, it's tempting to get as much as you can out of your doses. But two techniques that could extend flu vaccine are not recommended for use, according to officials of the Centers for Disease Control and Prevention (CDC).

A study in healthy adults indicates that a half-dose of flu vaccine could be effective.[1] But **Lance Rodewald**, MD, director of CDC's Immunization Services Division, noted the vaccine is needed for chronically ill and other high-risk people, in whom the smaller dose has not been tested. Further studies are under way, holding out the possibility that the vaccine supply could be extended in future years, he says. "At this time, it's not a viable option."

Meanwhile, Becton Dickinson of Franklin Lakes, NJ, announced it had a supply of special syringes that reduce waste and could increase doses available in multidose vials by up to 10%. However, those, too, are not ready for use in the United States for "regulatory, liability, and biologic reasons," he says.

If there is some vaccine remaining in the vial, but not enough for a full dose, the person administering the vaccine may be tempted to obtain the remainder from another vial, Rodewald notes. That could lead to cross-contamination of vials and could make it difficult to trace adverse events because the vials may be from different lots, he says.

Also, a per-dose excise tax funds the National Vaccine Injury Compensation program and leaves open the possibility that people vaccinated with the 11th dose would not be covered, Rodewald explains. And the syringes currently available aren't safety-engineered, which violates the bloodborne pathogens standard of the U.S. Occupational Safety and Health Administration.

"We really looked at it hard," he adds. "It raises a number of issues that could be problematic."

Reference

1. Treanor J, et al. Evaluation of a single dose of half strength inactivated influenza vaccine in healthy adults. *Vaccine* 2002; 20:1,099-1,105. ■

Wisconsin: Direct care means hands-on functions

The Centers for Disease Control and Prevention (CDC) has recommended flu vaccine for health care workers with direct patient care responsibilities. But what is direct patient care? The state of Wisconsin came up with this guidance:

The definition of health care workers with direct patient care responsibilities is based on these two considerations:

1. risk of transmission in health care settings is greater with prolonged close contact than with short-term, more indirect contact;
2. the ability to use infection control measures for staff not eligible for immunization.

Health care workers with direct patient care are those who perform hands-on patient care or medical procedures that bring them in direct physical contact with a patient.

Such procedures include blood pressure checks, bedpan duty, phlebotomy, bathing, physical examinations, and any other care in which the person "lays hands on a patient." Individuals likely to be in this category are:

- physicians;
- physician assistants and nurse practitioners;
- nurses;
- nurse aids;
- respiratory therapists;
- lab personnel;
- dentists;
- X-ray technicians;
- emergency medical service personnel;
- others who perform activities that bring them in close physical contact with patients.

Those who are excluded are:

- social workers;
- administration and support staff;
- maintenance workers;
- pharmacy staff;
- housekeeping staff;
- dietary staff;
- chaplains;
- patient representatives;
- others who do not perform hands-on care or medical procedures that bring them in close physical contact with patients.

Source: Wisconsin Department of Health and Family Services, Madison. Web: www.dhfs.wisconsin.gov/communicable/influenza/pdf_files/Influenzaclarification101504.pdf.

Who should be vaccinated with the flu shot this season?

According to the Centers for Disease Control and Prevention in Atlanta, priority groups for vaccination with inactivated influenza vaccine this season are:

- all children ages 6-23 months;
- adults ages 65 or older;
- people ages 2 to 64 years with underlying chronic medical conditions;
- all women who will be pregnant during influenza season;
- residents of nursing homes and long-term care facilities;
- children 6 months to 8 years on chronic aspirin therapy;
- health care workers with direct patient care;
- out-of-home caregivers and household contacts of children younger than 6 months.

Other vaccination recommendations

- Healthy people who are 5-49 years and not pregnant, including health care workers (except those who care for severely immunocompromised patients in special care units) and people who are caring for children younger than 6 months, should be encouraged to be vaccinated with intranasally administered live attenuated influenza vaccine.
- People in priority groups should be encouraged to search locally for vaccine if their usual health care provider does not have vaccine available.
- Many children younger than 9 require two doses of vaccine if they previously have not been vaccinated. All children at high risk of complications from influenza, including those ages 6-23 months, who present for vaccination should be vaccinated with a first or second dose, depending on vaccination status. However, doses should not be held in reserve to ensure that two doses will be available. Rather, available vaccine should be used to vaccinate people in priority groups on a first-come first-serve basis.

Vaccination of people in nonpriority groups

People who are not included in one of the priority groups should be informed about the urgent vaccine supply situation and asked to forego or defer vaccination.

Who should not get flu vaccine

People in the following groups should not get flu vaccine before talking with their physicians:

- People who have a severe allergy (i.e., anaphylactic allergic reaction) to hens' eggs.
- People who previously developed Guillain-Barré syndrome during the six weeks after getting a flu shot.

Some states have developed health rules or orders to enforce the prioritization of vaccine. The commissioner of the Massachusetts Department of Public Health declared a public health emergency and mandated that health care providers limit flu vaccine to those in high-risk categories. Failure to do so could lead to fines from $50 to $200 and/or imprisonment of up to six months. Michigan, New Mexico, Oregon, Wisconsin, and Washington, DC, also have placed restrictions on administration of the available flu vaccine.

Wisconsin provided a definition of health care workers involved in direct patient care. **(See top box, p. 153.)**

Unfortunately, the rationing effort is the opposite message public health authorities had hoped to present this fall. The National Foundation for Infectious Diseases set a goal of improving immunization among health care workers, as did the Association for Professionals in Infection Control and Epidemiology, based in Washington, DC.

"Hospitals are being asked to distinguish between health care workers who have direct patient contact and others," says **William Schaffner**, MD, who is on the board of the foundation. Schaffner also is chair of the department of preventive medicine at Vanderbilt University in Nashville, TN. "That's a big step back for us because we were trying to get all health care workers to be vaccinated each autumn."

In fact, Schaffner's facility found itself without flu vaccine because it had ordered from Chiron. A task force developed a strategic plan to give available vaccine to employees in the units with the greatest need, such as intensive care and the emergency department.

"It's very difficult [to ration] in a large medical center, where we do have high-risk patients who could show up at any point in the system," says **Melanie Swift**, MD, medical director of Vanderbilt Occupational Health Clinic.

"We have to make a very thoughtful and deliberate decision about the highest risk areas and the essential services," she adds.

Few employee health professionals are thinking about next year's flu season. But there were hints that the shortage might last longer than one year. "We will take all necessary actions to ensure an adequate supply for the 2005-2006 flu season and to resolve those issues with the regulatory authorities," Chiron president and CEO **Howard Pien** said at a press conference. But he acknowledged that a theoretical risk exists that the problem would not be fixed by late February or early March, when new strains are announced and flu vaccine production begins.

(Editor's note: More information about the flu vaccine shortage, priorities, and administration is available in a recorded Internet conference from the CDC at www.cdc.gov/nip/ed/ciinc/default.htm.) ■

Ergo tools help you get a fix on injuries

Use assessments to build a business plan

You've heard the ergonomics horror story: Thousands of dollars of lift equipment gathering dust in a storage closet while nurses become disabled and rack up thousands of dollars more in workers' compensation claims.

That doesn't have to happen to you, says **Lynda Enos**, RN, MS, COHN-S, CPE, an ergonomist who is founder of HumanFit, a consulting firm based in Oregon City and nursing practice specialist/ergonomist with the Oregon Nurses Association.

Enos has teamed up with the American Association of Occupational Health Nurses in Atlanta to offer online tools and resources at www.ergoresources.org. Those tools should be part of a nurse-driven program to reduce patient handling injuries, she says. "I think everyone wants a quick fix, and the vendors are very keen to sell you a wide variety of equipment," says Enos, who also is past president of the Oregon State Association of Occupational Health Nurses.

But instead of buying first and then building your program around your equipment, you should develop a business plan for ergonomics that involves nurses from the start, she says. "We're asking them to perform their job differently [in their patient handling]. If we don't get them involved, the change to safer patient handling practices isn't going to occur. They have to believe that the change is good for their patients as well as themselves."

First, you will need an ergonomics program coordinator (which may be you) and a multidisciplinary team that includes the employees you are trying to help. Together, you need to identify just what patient handling injuries are costing you and where you'll get the most benefit for your investment. "You have to know what the problem is," she says. "Everyone jumps to the OSHA

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Injury Cost Assessment Worksheet

List names of employees who have sustained musculoskeletal injuries by either the calendar year or by the workers' compensation insurance policy year. Data should be gathered either from OSHA 200/300 logs or insurance claims reports (loss runs), first aid and/or safety records.

Injury Data For Period _____ To _____
Month, Day, Year Month, Day, Year

Date	Name	Dept	Job Title	Nature of Injury	Body Part	Type of Injury				Workers' Comp		Costs
						First Aid	O Medical	S H Restricted # Days	A Lost time # Days	Total Expected	Total Paid to Date	Status

Source: www.ergoresources.org/ergofiles/ergo_injury_cost.pdf.

[Occupational Health and Safety Administration] logs and workers' comp claims."

The highest risk units may jump out at you. They are usually those areas where patients are most dependent, such as intensive care or rehabilitation. But you need to look more closely at the numbers to understand your true costs.

Remember that the total number of injuries may not give you a full picture because staffing levels may vary. So to compare different units, calculate the incident rate. Multiply your OSHA recordable injuries for each unit by 200,000 and divide by the number of hours worked per unit.

Keeping a separate log of musculoskeletal injuries can help you assess trends. A sample log provided by www.ergoresources.org incorporates the nature of the injury, lost workdays, and workers' comp costs. **(See log, p. 155.)** You can break down the costs of some individual cases to better understand the indirect costs. **(See sample form inserted in this issue. All the materials are from www.ergoresources.org.)**

Those numbers will help you make your case for an investment in ergonomics equipment and training, Enos explains. "You really want to target where your problems are. You want to know where the greatest risk for musculoskeletal disorders exists and show early successes," she says.

From these numbers, you can draft your business plan with a simple goal. For example, you may say, "I am going to reduce strains and sprains by 25% in the first year of this program," Enos adds. You should note how the ergonomics plan fits in with other goals of the organization, such as complying with standards of the Joint Commission on Accreditation of Healthcare Organizations. **(See *Hospital Employee Health*, November 2004, p. 144.)**

Be sure your expectations are reasonable, she advises. While ergonomics programs can produce impressive savings, an emphasis on reporting of injuries could lead to a spike in injury rates, she cautions. You want employees to report their injuries so they can reduce their risk of disability through early medical treatment.

"The incident rate usually goes up the first year of a program [because of reporting] then goes down," Enos says. "But the injury severity and costs go down dramatically early on in the program partly due to careful case management by employee health nurses and others. You need to tell administration that's going to happen."

Beyond the numbers, you'll want to stress that ergonomics is best for patients, too. Being held under the armpits while being moved can be uncomfortable and embarrassing, and if a nurse loses her grip, the patient could fall.

"Sometimes, you can't sell [ergonomics] on injury reduction alone," Enos adds. "You have to look at other benefits such as patient safety and quality of service." ■

Follow the rules: The path to better compliance

Safety techniques, peer coaches reduce errors

Safety devices that are never activated. Lift equipment gathering dust. Spills that aren't cleaned promptly and lead to slips and falls. How many of your injuries are caused by the failure to follow basic safety rules and procedures?

More than you might think, says **Craig Clapper**, PE, CQM, MBA, chief operating officer of Performance Improvement International in San Clemente, CA. More than half of all human errors that lead to injuries are caused by noncompliance, he says, citing his own unpublished surveys. Another 10% are caused by failure to pay attention or to recognize hazards. Only about 10% of human errors that lead to injury are due to lack of knowledge about the rule.

"We design systems to withstand human error, but there's no system that can withstand noncompliance," he explains.

Most employers focus on disciplinary action as a way to enforce compliance. But what happens when no one's looking? "There is no system that can force someone to do something they don't want to do because it's so easy to work around," Clapper says. "It's better to get to the fundamentals of solving the noncompliance problem."

Yes, difficult as it is, you can reduce noncompliance. But first you need to understand its basic causes. It can be summed up by a simple equation, he says. "Noncompliance is an effort to perform the task safely or take protective action, divided by your risk awareness plus your compliance culture."

In other words, the lower the burden of the safety rule or equipment, the more likely your employees will follow it. A lift available in the room will get more use than one in a cramped storage closet down the hall.

(Continued on page 158)

Memorial Health Behavior-Based Monitoring Card

1697217351

Observer: _____ ____

Date: ☐☐ / ☐☐ / ☐☐

Observation Start Time: ☐☐ : ☐☐

Date: ☐☐ / ☐☐ / ☐☐

Observation Start Time: ☐☐ : ☐☐

Department:

- O 3C
- O 4 Onc
- O 4C
- O 5 Neuro
- O 5Vascular
- O 5C
- O ACU
- O Acute Therapy
- O ADT
- O Behavioral Medicine
- O Breast Center
- O Cath Lab
- O CCU
- O CVICU
- O Diabetes Wellness
- O Dialysis
- O Emergency Dept
- O EPC
- O Holding
- O Hyperbaric Med
- O L & D
- O Laboratory
- O MB
- O Med Psych
- O MSI
- O MSTICU
- O NB Nursery
- O Neonatal ICU
- O NICU
- O OBS
- O OP Onc
- O Ortho
- O Other
- O PACU
- O Peds
- O Peds ICU
- O Peds op dept
- O Pharmacy
- O Pre Admit
- O Rad Oncology
- O Radiation Therapy
- O Radiology
- O Registration
- O Rehab Institute
- O Respiratory
- O SDS
- O Surgery
- O Surgery Paulsen
- O Transport
- O Wound Care

Current as of 12/5/03

ERROR PREVENTION EXPECTATIONS AND TECHNIQUES	Obs	Met	Obs	Met	Obs	Met
Clear Communications						
1. Was the repeat-back technique used effectively and efficiently?	O	O	O	O	O	O
2. Were clarification questions asked in a positive way and in a manner that improved understanding?	O	O	O	O	O	O
3. Was phonetic clarification used when communicating specific letters?	O	O	O	O	O	O
4. Was numeric clarification used when communicating numbers greater than 10?	O	O	O	O	O	O
Personal Commitment to Safety	Obs	Met	Obs	Met	Obs	Met
1. Were applicable policies and procedures followed?	O	O	O	O	O	O
2. Were "red rules" strictly adhered to (if applicable)?	O	O	O	O	O	O
3. Did the individual identify any high-risk situations that were present?	O	O	O	O	O	O
4. Did the individual take active steps to mitigate any high-risk situations?	O	O	O	O	O	O
5. Did the individual stop and contact the appropriate individual(s) when questions or problems arose?	O	O	O	O	O	O
Attention to Detail	Obs	Met	Obs	Met	Obs	Met
1. Did the individual pause (Stop/Think) for a few seconds prior to performing critical tasks?	O	O	O	O	O	O
2. Did it appear the individual checked the appropriate items before performing the tasks?	O	O	O	O	O	O
3. When performing the task did the individual maintain attention to details?	O	O	O	O	O	O
4. After completing the task(s) did the individual review for desired results?	O	O	O	O	O	O

GENERAL OBSERVATIONS	Yes	No	Yes	No	Yes	No
1. Were two independent means used to identify the patient, neither of which was the patient's room number?	O	O	O	O	O	O
2. Were proper hand-washing techniques used?	O	O	O	O	O	O
3. Did the individual report any identified problems via MAXSYS?	O	O	O	O	O	O
4. Did the individual document pertinent information in a legible, timely, and appropriate manner?	O	O	O	O	O	O

TEAM LEADER ERROR PREVENTION	Yes	No	Yes	No	Yes	No
Does your Team Leader:						
1.) Communicate openly and honestly	O	O	O	O	O	O
2.) Hold regular, pre-planned communication meetings	O	O	O	O	O	O
3.) Communicate established Red Rules	O	O	O	O	O	O
4.) Observe use of behavioral expectations	O	O	O	O	O	O
5.) Practice 5:1 instant feedback and constant reinforcement based on fact	O	O	O	O	O	O
6.) Develop staff	O	O	O	O	O	O
7.) Assign patients and tasks appropriately	O	O	O	O	O	O
8.) Manage shift change	O	O	O	O	O	O

Comments:

_____

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Source: Memorial Health University Medical Center, Savannah, GA.

Raising awareness of the risks — for example, of the prevalence of HIV and the need for prophylaxis following a needlestick — will increase compliance. So will an overall safety culture in which following safety rules is valued and rewarded.

"There is no one factor," Clapper notes. "If you start managing one like it's more important than the others, it won't help you as much as if you manage all three."

Stop and think for prevention

At Memorial Health University Medical Center in Savannah, GA, safety coaches help raise the awareness and safety culture — key factors in boosting compliance. **Jonathon Flanders**, patient safety coach and program coordinator, has a cadre of peer-based safety coaches in every unit. Larger departments have as many as six safety coaches.

These specially trained frontline workers actually use a checklist to monitor safety behaviors — focusing on both patient and worker safety.

When the program first began, some employees were very receptive to the safety coaching, while others responded negatively. But Flanders notes, "One of the requirements for working here is that you commit to the safety program and live the organization values."

The hospital began with a four-hour training session for all "Team Members" or employees, "Team Leaders" or managers, and physicians. The course emphasized behavior-based expectations and techniques related to error prevention. As a constant reminder, those expectations are even printed on the back of employee badges:

- Communicate clearly. Technique: Two clarifying questions. Repeat backs and verify. Phonetic and numeric communication.
- Adhere to policies, procedures, and red rules. Be sensitive to high-risk situations. STOP when unsure.
- Attention to details. Stop. Think. Act. Review. (STAR)

For example, the hospital expects employees to emphasize communication during shift changes by asking questions and repeating back information. They must follow "red rules," or the most important safety rules that have been identified in that department.

"Red rules are a minimum set of standards associated with certain patient safety processes and *must* be met and will require verbatim compliance to optimize the safety of our patients," Flanders points out. "For example, the global red rule is to positively identify patients every time they are touched using two forms of identification, neither of which can be a room number." They follow a procedure called STAR to prevent errors.

CE *questions*

This concludes the CE semester. An evaluation form has been enclosed. Please fill out and return in the envelope provided.

21. According to Ray Strikas, MD, a medical officer in the Immunization Services Division of CDC, how does the flu vaccine shortage impact the importance of vaccinating health care workers?
    A. They should be secondary to elderly and high-risk patients.
    B. They should be vaccinated if they also are at high risk for complications.
    C. Their vaccination is even more important in times of a vaccine shortage.
    D. The importance of health care worker vaccination is an individual decision to be decided by hospitals.

22. What is the approved use of FluMist, the intranasal vaccine that uses a live attenuated influenza virus?
    A. healthy people ages 5 to 49
    B. all people ages 5 to 49
    C. With a vaccine shortage, the approval has been extended to children older than 6 months and adults 50 to 64
    D. The use is the same as the traditional vaccine.

23. According to Lynda Enos, RN, MS, COHN-S, CPE, an ergonomist and consultant based in Oregon City, what step should you take to determine which unit has the highest costs related to patient handling?
    A. Compare overall number of injuries.
    B. Compare number of injuries by occupation.
    C. Look for the unit with the highest single workers' compensation claim.
    D. Calculate the incident rate and compare the rates for different units.

24. What three factors influence compliance, according to Craig Clapper, PE, CQM, MBA, chief operating officer of Performance Improvement International in San Clemente, CA?
    A. experience, management style, training
    B. effort needed to comply, risk awareness, and compliance culture
    C. staffing, risk awareness, accountability
    D. time pressures, risk awareness, hospital policy

Answer Key: 21. C; 22. A; 23. D; 24. B

These techniques have implications for both patient and worker safety. Memorial Health identified 12 common high-risk situations and 12 high-risk behaviors. For example, being distracted immediately before or during administration of a treatment or medication can lead to errors. "Part of being personally committed to safety is looking for those high-risk situations," Flanders adds. "You adjust your behavior."

The STAR approach is strongly emphasized. "Most of the errors we make in life or health care are not skill-based, they're simple slips or lapses," he says. "They're simple mistakes that we can avoid if we just pay attention to what the heck we're doing."

The hospital's safety coaches bolster this effort. They observe their co-workers, praising them when they do something well and correcting them when they fail to take a preventive measure. The coaches also fill out a form to note gaps in safety performance. **(See sample form on p. 157.)** It isn't used for disciplinary purposes, and employee names are not collected on the form. It's just a tool to identify areas that need improvement or more safety coach emphasis, Flanders notes.

"Research shows the best way to do [improve performance] is with constant reinforcement and co-worker coaching," he adds. "The safety coach gives immediate feedback." ■

Are HCWs spreading HCV in ambulatory care?

CDC investigates health care-related spread

Health care workers may be contributing to an undetected spread of hepatitis B and C in ambulatory care centers, a concern that has prompted an investigation by the Centers for Disease Control and Prevention (CDC).

Several large outbreaks have occurred in which health care workers improperly reused needles or contaminated multiuse vials and hundreds of patients contracted hepatitis B or C.

"The experience with these outbreaks is a little sobering. We have seen huge outbreaks," says **Ian Williams**, PhD, MS, chief of the Epidemiologic Research and Field Investigations Team in CDC's Division of Viral Hepatitis. "These shouldn't happen in the United States."

That led CDC investigators to ask: "Are there sporadic transmissions that we're missing out there?"

A closer look at surveillance data further raises the concern. About 40% of those older than 70 who have acute hepatitis B or C have been hospitalized or had same-day surgery. Yet only 10% of people older than 65 say they have been hospitalized in the past six months, according to the National Health Interview Survey. Older adults presumably do not have the other major risk factors for hepatitis B or C — intravenous drug use and multiple sex partners.

"We don't know exactly what this means, but it's suggestive that something's going on," says Williams.

The CDC is launching a study to compare the hospitalization and same-day surgery rates of people older than 60 who have acute hepatitis B or C and older people in the general population who do not.[1] "If hospitalization really is more common among these cases than well-matched controls, then health care is a factor [in transmission]," he explains.

The study will not look at the possibility of health care worker-to-patient transmission or prevalence among health care workers.

As a group, health care workers have a prevalence of hepatitis C that is similar to or lower than the general population, Williams notes.

Infection control in ambulatory care

For now, the CDC is pondering a different question: What should be done to improve infection control practices? The concern is greatest in ambulatory care, where the recent outbreaks occurred.

For example, 69 HCV infections and 31 HBV infections were linked to an Oklahoma pain management clinic, where a nurse reused a syringe and needle for injections into a heparin lock of the patients' IV line.

COMING IN FUTURE MONTHS

- An update on coping with the flu vaccine shortage
- Tackling injury reduction on a hospitalwide basis
- Keeping a sharp focus on needle safety in the OR
- Fit-testing as a part of emergency preparedness
- Why you should care about employee wellness

At a hematology/oncology clinic in Nebraska, 99 patients developed HCV infections linked to chemotherapy treatment.

"The investigation revealed that the health care worker responsible for medication infusions routinely used the same syringe to draw blood from patients' central venous catheters and to draw catheter-flushing solution from 500 cc saline bags that were used for multiple patients," researchers concluded.[2]

"The guidelines are out there on injection safety and the possible contamination of multiuse vials," says **Raymond Chinn**, MD, hospital epidemiologist at Sharp Memorial Hospital in San Diego and leader of the ambulatory care working group of the Healthcare Infection Control Practices Advisory Committee (HICPAC), a CDC advisory panel. "The challenge is they're not being followed."

HICPAC is partnering with other organizations to find ways to promote better infection control practices in ambulatory care centers, Chinn says.

"We think one of the key things that should happen is education and oversight," Williams explains. "You wouldn't think you have to tell people not to reuse needles and syringes. But it's happening, believe it or not."

References

1. Centers for Disease Control and Prevention. Proposed data collection submitted for public comment and recommendations. *Fed Reg* 2004; 69:43,594.
2. Transmission of hepatitis B and C viruses in outpatient settings — New York, Oklahoma, and Nebraska, 2000-2002. *MMWR* 2003; 52:901-906. ■

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. ■

(Continued from cover page)

Injury Cost Analysis Worksheet –Direct, Indirect and Operational Costs (For any type of work related injury)

Adapt this as needed for your company and for the data that is available to you.
Remember that not every incident will need this type of detailed analysis to cost-justify a solution

Item/Activity	Time Spent	Wages ($/hr include % value of benefits if information available))	Total $ Cost
Direct Costs			
Wrokers Compensation premiums			
Direct Costs per incident/injury			
1. Medical costs (treatment) immediate and follow-up			
2. Temporary Income benefits (workers comp)			
3. Cost of transport to medical facility (ambulance fees,etc)			
4. On site supplies used			
5. Drug testing			
Indirect costs			
Incident costs			
6. Time to Provide First Care or Onsite Medical Care			
▪ Nurse			
▪ First Aid responder or other			
7. Time to transport to medical facility (and stay with employee)			
8. Time to complete paperwork			
9. Time to secure area			
10. Time for any other employees assisting with injury			
Investigation Costs For each person involved itemize the following:			
1. Time taking to investigate incident			
2. Time to complete paperwork			
3. Time for follow- up meetings to discuss incident (safety committee meeting, EH&S coordinator, supervisors, employees etc)			
Damage Costs (If applicable) For the following consider direct cost of equipment and labor costs of all involved)			
1. Costs of clean-up/salvage (Costs of maintenance and other personnel involved)			
2. Equipment repair/replacement			
3. Property/Structural repair/replacement			
4. Equipment rental cost			
5. Material/Product loss			
6. Material/Product rework			
7. Cost of disposal of damaged equipment/product			

Injury Management Costs For each person involved (e.g. nurse, human resources, supervisor, manager) itemize the following:			
1. Time spent to manage claim: phone calls, meetings			
2. Meetings with injured employee and others			
3. Phone calls			
4. Paperwork			
5. Return to work program –			
▪ Time to organize			
▪ Job evaluations			
▪ Partial wage replacement			
▪ Cost of Equipment or tool, wrokstation redesign etc			
6. Other costs			
Legal Costs			
1. Legal Counsel fees			
2. Management time/employee preparation time, witnesses, etc			
3. Expert witness fees			
4. Fines			
5. Other Costs (Settlements, etc)			
Worker Replacement Costs or Turnover Costs			
1. Advertising fees			
2. Time to hire			
3. Direct labor cost (hourly rate including fee if contractor or temp worker) 4. Include benefit burden if permanent employee			
5. Time to training and orientation			
6. Time for supervision			
7. Impact on productivity –getting new worker 'up to speed' on production or current project			
8. Impact on quality			
Productivity or Operational Costs			
1. Lost productivity (work time) due to disruption			
2. Impact on quality (rejects, rework, scrap, service quality)			
3. On day of accident and during investigation			
4. On Subsequent days			
5. Cost of overtime and/or standby labor			
6. Cost of increased quality inspection or other measures to avoid lost production or quality defects/issues			
7. Cost to return injured work to job			
▪ Time to worker 'up to speed' on production or current project			
▪ Time for follow-up medical appointments			
8. Other costs			

Source: www.ergoresources.org/ergofiles/ergo_injury_cost_long.pdf.

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