Department of Veterans Affairs

Memorandum

Date: February 28, 2003

From: Deputy Under Secretary for Health for Operations and Management (10N)

Subj: Preliminary Review of Bloodborne Pathogens Performance Monitor Results

To: Network Directors (10N1-23)
CC: Network Quality Management Officers
Network Chief Medical Officers

1. In 2001, the Occupational Safety and Health Administration (OSHA) promulgated the Safe Needle Act, which modified the Bloodborne Pathogens standard (OSHA 1910.1030). This Act required facilities to replace devices which may cause exposure to blood or body fluids with "safer" devices, that must meet certain FDA criteria; to involve front-line workers at the facility level in the selection of such devices; to post the injury information in a dedicated Sharps Injury Log, while protecting the identify of injured employees; and to review the Exposure Control plan annually, in an attempt to speed up replacement of safer devices. Some hospitals have been cited for using devices that are currently being marketed as "safer" although they fail to meet FDA's criteria, suggesting that careful review and front-line worker involvement is essential. VHA set a performance monitor for FY2002 on bloodborne pathogens. The components of this monitor include:

a. Replacing at least three devices causing injuries
b. Submitting exposure control plans as reviewed in FY2002

2. VHA has long been a leader in bloodborne pathogens injury reduction. OSHA recently approached VHA to work on implementation issues and develop a joint satellite broadcast, which is currently accessible from OSHA's website in streaming video. This reflects VHA's leadership in the field of health care worker occupational health. In preparation for that broadcast, VHA inquired about implementation difficulties through informal calls to various professional groups. In addition, VHA has information from the 2001 All Employee Survey and from its in-house injury reporting system. These were reviewed together with the data responses to the performance monitor to prepare the summary below.

3. Responses submitted by 134 hospital systems from all twenty-one VISNs were available for this initial analysis. Results include the following:

a. In FY2002, facilities replaced an average of 6.2 devices (standard deviation: 4.8)
b. There was no difference in the number of devices replaced by large or small facilities (mean differences: average 5.8 in smallest quartile of facilities, average 6.2 in largest quartile of facilities)

c. In FY2001 and before, facilities had replaced an average of 13.5 devices (standard deviation: 7.6)
d. Large facilities had replaced significantly more devices than small facilities (largest quartile average: 13.5, smallest quartile average10.0)
e. Several facilities have replaced so many devices that they were unable to identify three additional devices for replacement in FY2002. Those facilities are to be commended. They were: White River Junction, Bath, Indianapolis, Northern Indiana, Honolulu, Palo Alto, and San Francisco.
f. Some facilities have replaced devices without involvement of front-line workers and without adequate training of staff in device usage. Although facilities are to be commended for the eagerness, such implementation strategies do not meet the requirements of the OSHA standard and may cause increases in injury rates.

4. Attached are tables reflecting:

a. Whether VISNs met or did not meet the performance monitor in FY2002. Some of the individual facilities that did not replace all devices were still in the process of trialing or of purchasing devices.
b. The number of devices replaced by VISN in FY2002 and FY2001 or before by Facility Size

5. Bloodborne pathogens injuries rank among the most frequent injuries in VHA, representing 19% of events reported in ASIS TS (Figure 1). Although this appears high, the 2001 All Employee survey suggested VHA employees experience between 35,000 and 50,000 bloodborne pathogens injuries in FY2001. The occupations at highest risk of bloodborne pathogens injury in VHA were surgeons and dentists (see figure 2), although nurses experience over 50% of the bloodborne pathogens injuries in VHA. The types of injuries vary for these groups and are included in Attachment 1.

In accordance with the new OSHA guidelines, dental, surgical, nursing staff should continue to monitor and evaluate new and existing products which could help prevent sharps injuries in the work environment (i.e. new "safety needles"). In addition, new equipment designs may minimize exposure to sharps.

6. In the course of the satellite broadcast, field questions and OSHA responses suggest the following additional information may be useful

a. OSHA expects to see ongoing efforts to replace devices, based on annual reviews of injuries. OSHA recognizes that replacing devices is a time-consuming process. If facilities are actively replacing devices as evidenced by the presence of a committee (evaluating, trailing, replacing) that is doing things (replaced devices in use in the facility) OSHA is not likely to cite. (We are happy to support citation challenges where those occur in such settings).
b. The Safe Needle Act mandates that frontline workers be involved in selecting devices. OSHA will view standardization across facilities (by VISN) as not meeting the requirements of the Act

c. Trialing and selecting devices and then not purchasing them will be viewed by OSAH as a violation of the lawA new CD-ROM is under development in West Haven for training on bloodborne pathogens. Please feel free to log on (**http://208.34.95.23/base/courses**recognizing this is still under development, and comment back to Drs Esther Nash and, Paul Heller or Robert Lucas (in Outlook)

7. VHA has implemented abroad range of programs to reduce bloodborne pathogens injuries, reflecting its position of national leadership. These programs have had a clear and demonstrable effect: facilities and areas with a higher prevalence of safer devices clearly have lower bloodborne pathogens injury rates than those with fewer devices in use. Thanks for your good work and for your efforts in providing a safe workplace for employees. Such a focus on safety represents a major commitment to being an employer of choice.

/Signed/
Laura J. Miller

Attachments
Table 1: Device replacement by facility size
Table 2: VISN Reporting of devices replaced in FY2002 or in FY2001 and before
Figure 1: ASISTS cumulative data 1998-2001
Figure 2: Bloodborne pathogens injuries by occupational group
Figure 3: Bloodborne pathogens injury by “safety” device use penetration
Attachment 1 – the 3 VHA occupations with the most frequent injuries

Table 1: Device replacement by facility size

Facility size in FTEE	did not replace 3 or more devices	replaced three or more devices
Less than 685	20.6%	79.4%
688-1160	14.7%	85.3%
1161 - 1690	21.2%	78.8%
1691 - 3600	27.3%	72.7%
Average	20.9%	79.1%

Table 2: VISN Reporting of devices replaced in FY2002 or in FY2001 and before

VISN	Devices replaced in 2002	Devices replaced in 2001 or earlier
1	43	106
2	28	20
3	39	59
4	78	179
5	17	46
6	37	97
7	30	73
8	34	110
9	31	130
10	13	48
11	46	91
12	45	89
15	28	70
16	83	158
17	33	53
18	58	68
19	40	75
20	43	77
21	37	110
22	21	84
23	50	80
Grand Total	834	1823

Figure 1

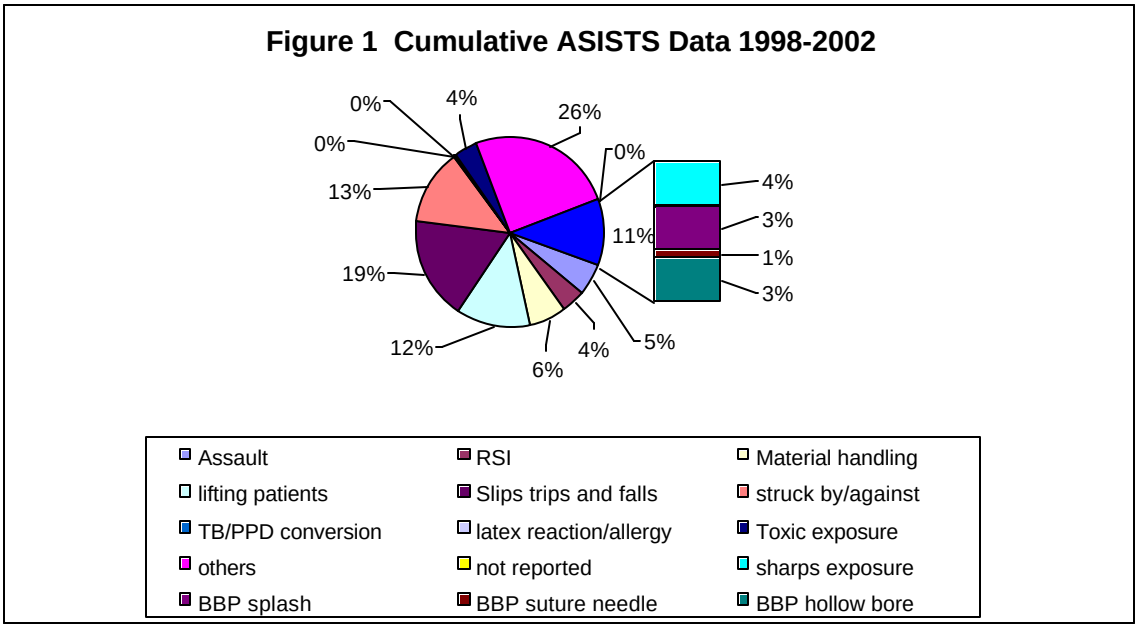
Figure 1 Cumulative ASISTS Data 1998-2002
0%
4%
26%
0%
0%
13%
11%
4%
3%
1%
3%
19%
12%
6%
4%
5%
Assault
RSI
Material handling
lifting patients
Slips trips and falls
struck by/against
TB/PPD conversion
latex reaction/allergy
Toxic exposure
others
not reported
sharps exposure
BBP splash
BBP suture needle
BBP hollow bore

Figure 2

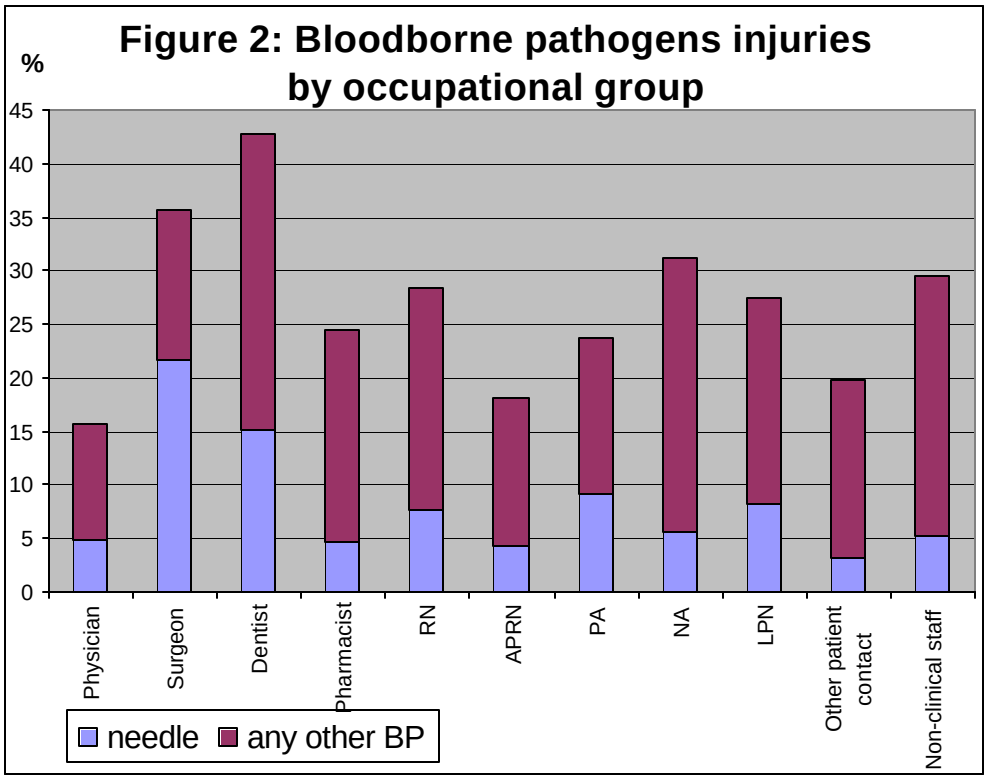
Figure 2: Bloodborne pathogens injuries by occupational group
%
45
40
35
30
25
20
15
10
5
0
Physician
Surgeon
Dentist
Pharmacist
RN
APRN
PA
NA
LPN
Other patient contact
Non-clinical staff
needle
any other BP

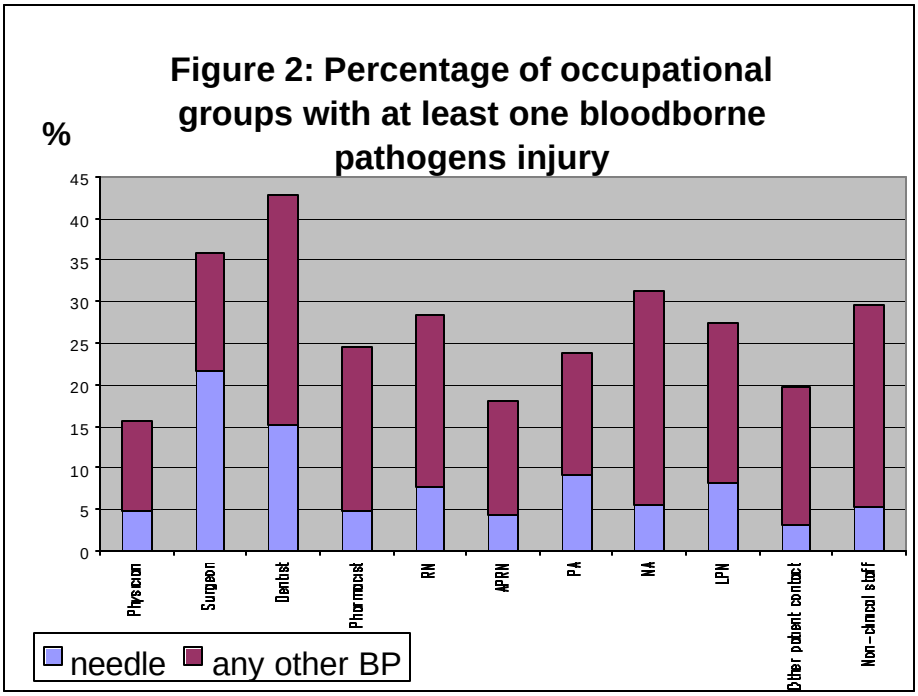
Figure 2: Percentage of occupational groups with at least one bloodborne pathogens injury
%
45
40
35
30
25
20
15
10
5
0
Physician
Surgeon
Dentist
Pharmacist
RN
APRN
PA
NA
LPN
Other patient contact
Non-clinical staff
needle
any other BP

Figure 3

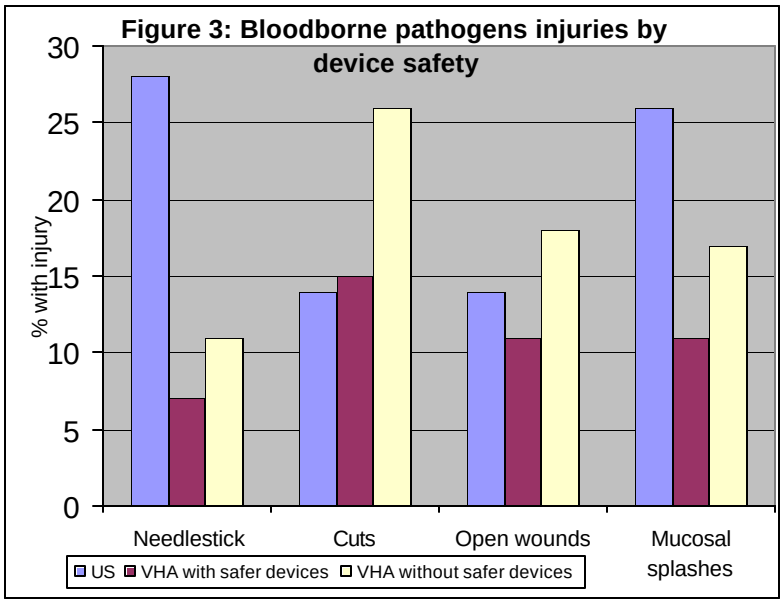
Figure 3: Bloodborne pathogens injuries by device safety
% with injury
30
25
20
15
10
5
0
Needlestick
Cuts
Open wounds
Mucosal splashes
US
VHA with safer devices
VHA without safer devices

Attachment 1

Dentistry: One of the most frequent extra-oral injuries result from dental burrs (drills) left in the hand pieces (these are considered "sharps injuries". Needlestick injuries also occur during the administration of local anesthetic, during uncapping/recapping procedures and even during cleanup (removal of needles from syringes). Other sharps injuries also occur (i.e. from blades, numerous sharp dental instruments) in dentistry. Possible solutions for these causes include, but are not limited to:

i. dental burrs: remove the burr after use (work practice control), using bur cassettes when storing burs and new equipment design by manufacturers which reduces exposure of sharp dental burs (engineering controls).
ii. Anesthetic syringes/needles: Use of uncapping/recapping devices when injecting local anesthetic (2 handed recapping of the dental anesthetic syringe violates both OSHA BBP regulations and VA Dental Infection Control Guidelines).
iii. Continued use of existing personal protective equipment in dentistry (i.e. heavy duty rubber gloves during cleanup, blade removal devices, eye protection, instrument retractors in the oral cavity, etc).

Surgery: Common causes of injury include: sharps injuries (needles, scalpels) during instrument transfer, suture needle injuries, and other sharps (scalpels) injuries. Several specific interventions and two specific strategies have been identified in facilities, and documented in the peer-reviewed literature, to have some benefit. Such strategies must be considered very carefully, as many are not appropriate for all settings or procedures. The implications for duration of surgery, the risks to patients and staff from uncomfortable devices, and the duration of time to implement solutions must be considered very carefully. Affected staff must be involved in trialing these strategies, and such strategies may not be implemented against their judgment. Still, the following have been useful

iv. Work practices: the use of "hands-free" or "instrument transfer/passing" zones clearly reduces injuries. Double gloving may protect against exposure, but further scientific work remains to be done to show these conclusively.
v. Devices: The use of blunt suture needles and of "safer" scalpels may lead to a decreased injury frequency of injuries, based on some published literature.
vi. Implementation: Implementing these solutions requires institutional commitment and "felt" leadership in the operating room, as provided by chiefs of surgery or chief nurses in the operating room.

Nursing: Nursing comprises a large and varied group of individuals, with a broad range of tasks and risks. Injections through the skin and direct venous sticks (injections, lines, and blood-drawing) represent the most common forms of injury. Strategies to address these injuries must be developed at the local level, as the underlying causes and reasons differ from facility to facility.