



Exposure Prevention Information Network

# 2007 U.S. EPINet Needlestick and Sharp-Object Injury Report

© International Healthcare Worker Safety Center, University of Virginia

Jan 01, 2007 to Dec 31, 2007

**Total Cases: 951**

**Average Daily Census: 3400**

Excludes injuries occurring before use of device

**9 Teaching facilities (average daily census = 2317; total injuries = 775)**

**20 Non-teaching facilities (average daily census = 1083; total injuries = 176)**

Job category		
1 Doctor (attending.staff) List specialty	137	14.4%
2 Doctor (intern/resident/fellow) List specialty	171	18.0%
3 Medical Student	9	0.9%
4 Nurse	322	33.9%
5 Nursing Student	6	0.6%
6 Respiratory Therapist	19	2.0%
7 Surgery Attendant	59	6.2%
8 Other Attendant	15	1.6%
9 Phlebotomist/ Venipuncture/ IV Team	44	4.6%
10 Clinical Laboratory Worker	12	1.3%
11 Technologist (non lab)	39	4.1%
13 Dental Hygienist	1	0.1%
14 Housekeeper	14	1.5%
15 Other, describe	64	6.7%
16 Paramedic	8	0.8%
17 Other Student	15	1.6%
18 CNA/HHA	12	1.3%
19 Laundry Worker	2	0.2%
20 Security	1	0.1%
Total Records: 950		

Where did the injury occur?		
1 Patient Room/Ward	221	23.3%
2 Outside Patient Room	10	1.1%
3 Emergency Department	82	8.6%
4 Intensive/Critical Care Unit	82	8.6%
5 Operating Room/Recovery	341	35.9%
6 Outpatient Clinic/Office	61	6.4%
8 Venipuncture Center	2	0.2%
9 Dialysis Facility	8	0.8%
10 Procedure Room	39	4.1%

11 Clinical Laboratories	6	0.6%
12 Autopsy/Pathology	10	1.1%
13 Service/Utility Area	8	0.8%
14 Other, describe	46	4.8%
16 Labor and Delivery Room	32	3.4%
17 Home-care	2	0.2%
Total Records: 950		

<b>Was the source patient identifiable?</b>		
1 Yes	901	95.1%
2 No	36	3.8%
3 Unknown	9	1.0%
4 N/A	1	0.1%
Total Records: 947		

<b>Was the injured worker the original user of the sharp item?</b>		
1 Yes	642	67.9%
2 No	279	29.5%
3 Unknown	10	1.1%
4 N/A	14	1.5%
Total Records: 945		

<b>Was the sharp item contaminated?</b>		
1 Contaminated	873	92.8%
2 Uncontaminated	10	1.1%
3 Unknown	58	6.2%
Total Records: 941		

<b>What was the original purpose of the sharp item?</b>		
1 Unknown/not applicable	49	5.2%
2 Injection, intramuscular/subcutaneous	224	23.6%
3 Heparin or saline flush	4	0.4%
4 Other injection into IV injection site or port	12	1.3%
5 To connect IV line	1	0.1%
6 To start IV or setup heparin lock	35	3.7%
7 To draw a venous blood sample	109	11.5%
8 To draw an arterial blood sample	18	1.9%
9 To obtain a body fluid or tissue sample	17	1.8%
10 Fingerstick/heel stick	10	1.1%
11 Suturing	228	24.0%
12 Cutting	80	8.4%
13 Electrocautery	12	1.3%

14 To contain a specimen or pharmaceutical	5	0.5%
15 Other, describe	122	12.9%
16 To place an arterial/central line	16	1.7%
17 Drilling	7	0.7%
Total Records: 949		

<b>When did the injury occur?</b>		
2 During use of item	450	47.5%
3 Between steps of a multi-step procedure	134	14.1%
4 Disassembling device or equipment	23	2.4%
5 In preparation for reuse of reusable instruments	12	1.3%
6 While recapping a used needle	32	3.4%
7 Withdrawing a needle from rubber or other resistance	15	1.6%
8 Other after use, before disposal	99	10.5%
9 From item left on or near disposal container	2	0.2%
10 While putting the item into the disposal container	38	4.0%
11 After disposal, stuck by item protruding from disposal	10	1.1%
12 Item pierced side of disposal container	1	0.1%
13 After disposal, item protruding from trash bag or inapp	6	0.6%
14 Other, describe	69	7.3%
15 Restraining patient	6	0.6%
16 Device left on floor, table, bed or other inappropriate	50	5.3%
Total Records: 947		

<b>Type of device causing injury:</b>		
1 Syringe, disposable	289	30.8%
2 Syringe, prefilled cartridge	27	2.9%
3 Syringe, blood gas	12	1.3%
4 Syringe, other type	3	0.3%
5 Needle on IV tubing	1	0.1%
6 Needle, Winged steel	52	5.5%
7 IV catheter	27	2.9%
8 Needle/holder vacuum tube blood collection	16	1.7%
9 Needle, spinal or epidural	5	0.5%
10 Needle, unattached hypodermic	4	0.4%
11 Needle, arterial catheter introducer	9	1.0%
12 Needle, central line catheter introducer	7	0.7%
13 Needle, drum catheter	2	0.2%
15 Needle, other non vascular catheter	3	0.3%
28 Needle, unknown type	16	1.7%
29 Needle, describe	42	4.5%
30 Lancet	12	1.3%
31 Suture Needle	224	23.9%
32 Scalpel, reusable	35	3.7%
33 Razor	1	0.1%

34 Pipette, plastic	1	0.1%
35 Scissors	4	0.4%
36 Electrocautery Device	14	1.5%
37 Bone cutter	6	0.6%
39 Towel clip	2	0.2%
41 Trocar	1	0.1%
44 Fingernails/teeth	5	0.5%
45 Scalpel, disposable	35	3.7%
46 Retractors, skin/bone hooks	7	0.7%
47 Staples, steel sutures	1	0.1%
48 Wire	7	0.7%
49 Pin	5	0.5%
50 Drill bit	7	0.7%
51 Pickup/forceps/hemostats	3	0.3%
58 Sharp item, not sure what kind	10	1.1%
59 Other sharp item (please describe)	31	3.3%
60 Medication ampule	2	0.2%
61 Medication vial	1	0.1%
63 Pipette, glass	1	0.1%
78 Glass item, unknown type	2	0.2%
79 Glass item, other	6	0.6%
Total Records: 938		

<b>If injury was caused by a needle, was it a "safety design"?</b>		
1 Yes	341	37.4%
2 No	529	58.0%
3 Unknown	42	4.6%
Total Records: 912		
<b>A. If yes, was safety mechanism activated?</b>		
1 Yes, fully	38	11.9%
2 Yes, partially	55	17.2%
3 No	226	70.8%
Total Records: 319		
<b>B. If yes, did the injury happen?</b>		
1 Before activation	204	66.2%
2 During activation	65	21.1%
3 After activation	39	12.7%
Total Records: 308		

<b>Location of injury as selected from list</b>		
Arm	29	3.1%
Face/Head	1	0.1%

Foot	6	0.6%
Front	2	0.2%
Hand, left	574	60.9%
Hand, right	324	34.4%
Leg	7	0.7%
Total Records: 943		

<b>Depth of the injury</b>		
Superficial-little or no bleeding	651	69.3%
Moderate-skin punctured, some bleeding	257	27.3%
Severe-deep stick/cut, profuse bleeding	32	3.4%
Total Records: 940		

<b>Did the sharp item penetrate?</b>		
1 Single pair of gloves	627	68.8%
2 Double pair of gloves	176	19.3%
3 No gloves	108	11.9%
Total Records: 911		

<b>Handedness of injured worker</b>		
1 Right-handed	874	94.0%
2 Left-handed	56	6.0%
Total Records: 930		