

# 2008 EPINet Report for Needlestick and Sharp Object Injuries

International Healthcare Worker Safety Center  
University of Virginia

Reporting period: Jan 01, 2008 to Dec 31, 2008

Type of facility where occurred: ALL  
Dept where incident occurred: ALL  
Home department: ALL  
Job category: ALL  
Where the injury occurred: ALL  
Injured worker was original user? ALL  
Was it contaminated? ALL  
Original purpose of sharp item: ALL  
When the injury occurred: INCLUDES injuries occurring  
before device was used  
Type of device: ALL  
Device: ALL  
Dominant hand of HCW: ALL  
Was item a "safety design"? ALL

## Hospital & rate information:

- Total # hospitals contributing data = 33 (10 teaching, 23 non-teaching)
- Total # injuries reported: 1194
- Average daily census (ADC), all hospitals combined: 4920
- Percutaneous injury (PI) rate, all hospitals: **24.3 per 100 occupied beds**
- Teaching hospitals: total PIs =949; total ADC=3904; PI rate= 24.3 per 100 occupied beds
- Non-teaching hospitals: total PIs=245; ADC=1016; PI rate=24.1 per 100 occupied beds

## 5. Job category:

1 Doctor (attending/staff) List specialty	147	12.3%
2 Doctor (intern/resident/fellow) List specialty	172	14.4%
3 Medical Student	14	1.2%
4 Nurse	426	35.7%
5 Nursing Student	4	0.3%
6 Respiratory Therapist	33	2.8%
7 Surgery Attendant	109	9.1%
8 Other Attendant	15	1.3%
9 Phlebotomist/Venipuncture/IV Team	51	4.3%
10 Clinical Laboratory Worker	18	1.5%
11 Technologist (non lab)	65	5.5%
12 Dentist	3	0.3%
14 Housekeeper	28	2.3%
15 Other, describe	77	6.5%
16 Paramedic	7	0.6%
17 Other Student	9	0.8%
18 CNA/HHA	13	1.1%
20 Security	1	0.1%

Total Records: 1,192

## 6. Where did the injury occur?

1 Patient Room/Ward	310	26.1%
2 Outside Patient Room	5	0.4%
3 Emergency Department	98	8.2%
4 Intensive/Critical Care Unit	86	7.2%
5 Operating Room/Recovery	434	36.5%
6 Outpatient Clinic/Office	64	5.4%
7 Blood Bank	1	0.1%
8 Venipuncture Center	3	0.3%

# EPINet Report for Needlestick and Sharp Object Injuries

9 Dialysis Facility	5	0.4%
10 Procedure Room	59	5.0%
11 Clinical Laboratories	12	1.0%
12 Autopsy/Pathology	7	0.6%
13 Service/Utility Area	15	1.3%
14 Other, describe	39	3.3%
16 Labor and Delivery Room	50	4.2%
17 Home-care	2	0.2%
Total Records: 1,190		

## 7. Was the source patient identifiable?

1 Yes	1,124	94.4%
2 No	49	4.1%
3 Unknown	14	1.2%
4 N/A	4	0.3%
Total Records: 1,191		

## 8. Was the injured worker the original user of the sharp item?

1 Yes	786	66.3%
2 No	365	30.8%
3 Unknown	11	0.9%
4 N/A	23	1.9%
Total Records: 1,185		

## 9. Was the sharp item contaminated?

1 Contaminated	1,078	90.9%
2 Uncontaminated	40	3.4%
3 Unknown	68	5.7%
Total Records: 1,186		

## 10. What was the original purpose of the sharp item?

1 Unknown/not applicable	38	3.2%
2 Injection, intramuscular/subcutaneous	282	23.7%
3 Heparin or saline flush	2	0.2%
4 Other injection into IV injection site or port	21	1.8%
5 To connect IV line	1	0.1%
6 To start IV or setup heparin lock	57	4.8%
7 To draw a venous blood sample	149	12.5%
8 To draw an arterial blood sample	39	3.3%
9 To obtain a body fluid or tissue sample	23	1.9%
10 Fingerstick/heel stick	12	1.0%
11 Suturing	275	23.1%
12 Cutting	106	8.9%
13 Electrocautery	8	0.7%
14 To contain a specimen or pharmaceutical	14	1.2%
15 Other, describe	134	11.3%

# EPINet Report for Needlestick and Sharp Object Injuries

16 To place an arterial/central line	10	0.8%
17 Drilling	20	1.7%
Total Records:	1,191	

## 11. When did the injury occur?

1 Before use of item	18	1.5%
2 During use of item	508	42.6%
3 Between steps of a multi-step procedure	184	15.4%
4 Disassembling device or equipment	39	3.3%
5 In preparation for reuse of reusable instruments	20	1.7%
6 While recapping a used needle	40	3.4%
7 Withdrawing a needle from rubber or other resistance	17	1.4%
8 Other after use, before disposal	152	12.8%
9 From item left on or near disposal container	2	0.2%
10 While putting the item into the disposal container	59	4.9%
11 After disposal, stuck by item protruding from disposal	14	1.2%
12 Item pierced side of disposal container	1	0.1%
13 After disposal, item protruding from trash bag or inapp	19	1.6%
14 Other, describe	66	5.5%
15 Restraining patient	6	0.5%
16 Device left on floor, table, bed or other inappropriate place	47	3.9%
Total Records:	1,192	

## 12. Type of device causing injury:

1 Syringe, disposable	362	30.6%
2 Syringe, prefilled cartridge	21	1.8%
3 Syringe, blood gas	31	2.6%
4 Syringe, other type	7	0.6%
5 Needle on IV tubing	4	0.3%
6 Needle, Winged steel	69	5.8%
7 IV catheter	35	3.0%
8 Needle/holder vacuum tube blood collection	32	2.7%
10 Needle, unattached hypodermic	4	0.3%
11 Needle, arterial catheter introducer	3	0.3%
12 Needle, central line catheter introducer	3	0.3%
13 Needle, drum catheter	4	0.3%
14 Needle, other vascular catheter	7	0.6%
15 Needle, other non vascular catheter	1	0.1%
28 Needle, unknown type	24	2.0%
29 Needle, describe	41	3.5%
30 Lancet	10	0.8%
31 Suture Needle	265	22.4%
32 Scalpel, reusable	43	3.6%
33 Razor	3	0.3%
35 Scissors	6	0.5%
36 Electrocautery Device	8	0.7%

# EPINet Report for Needlestick and Sharp Object Injuries

37 Bone cutter	3	0.3%
38 Bone chip	2	0.2%
39 Towel clip	6	0.5%
40 Microtome blade	2	0.2%
41 Trocar	3	0.3%
44 Fingernails/teeth	4	0.3%
45 Scalpel, disposable	53	4.5%
46 Retractors, skin/bone hooks	15	1.3%
47 Staples, steel sutures	5	0.4%
48 Wire	25	2.1%
49 Pin	6	0.5%
50 Drill bit	15	1.3%
51 Pickup/forceps/hemostats	12	1.0%
58 Sharp item, not sure what kind	5	0.4%
59 Other sharp item (please describe)	31	2.6%
61 Medication vial	1	0.1%
64 Vacuum tube, glass	2	0.2%
65 Specimen/test tube, glass	1	0.1%
67 Glass slide	1	0.1%
78 Glass item, unknown type	4	0.3%
79 Glass item, other	3	0.3%

Total Records: 1,182

## 13. If injury was caused by a needle, was it a "safety design"?

1 Yes	428	37.2%
2 No	591	51.4%
3 Unknown	130	11.3%

Total Records: 1,149

### 13a. If yes, was safety mechanism activated?

1 Yes, fully	30	7.7%
2 Yes, partially	93	23.7%
3 No	269	68.6%

Total Records: 392

### 13b. If yes, when did the injury happen?

1 Before activation	219	58.7%
2 During activation	98	26.3%
3 After activation	56	15.0%

Total Records: 373

## 14. Location of injury as selected from list:

Arm	25	2.1%
Foot	3	0.3%
Front	2	0.2%
Hand, left	702	59.3%

# EPINet Report for Needlestick and Sharp Object Injuries

Hand, right	441	37.3%
Leg	10	0.8%
Total Records: 1,183		

## 15. Depth of the injury:

Superficial-little or no bleeding	747	63.1%
Moderate-skin punctured, some bleeding	366	30.9%
Severe-deep stick/cut, profuse bleeding	70	5.9%
Total Records: 1,183		

## 16. Did the sharp item penetrate?

1 Single pair of gloves	797	68.7%
2 Double pair of gloves	237	20.4%
3 No gloves	126	10.9%
Total Records: 1160		

## 17. Handedness of the injured worker:

1 Right-handed	865	92.8%
2 Left-handed	67	7.2%
Total Records: 932		