

2009 EPINet Report for Needlestick and Sharp Object Injuries

International Healthcare Worker Safety Center
University of Virginia

Reporting period: Jan 01, 2009 to Dec 31, 2009
 Facility where occurred: ALL
 Type facility where occurred: ALL
 Dept where occurred: ALL
 Home department: ALL
 Job category: ALL
 Where the injury occurred: ALL
 Injured worker 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 = 32 (9 teaching, 23 non-teaching)
 • Total # injuries reported: 897
 • Average daily census (ADC), all hospitals combined: 4440
 • Percutaneous injury (PI) rate, all hospitals: 20.2 per 100 occupied beds
 • Teaching hospitals: total PIs =666; total ADC=3321; PI rate= 20.1 per 100 occupied beds
 • Non-teaching hospitals: total PIs=231; ADC=1120; PI rate=20.6 per 100 occupied beds

5. Job category:

1	Doctor (attending/staff) List specialty	124	13.9%
2	Doctor (intern/resident/fellow) List specialty	62	6.9%
3	Medical Student	21	2.4%
4	Nurse	388	43.4%
5	Nursing Student	5	0.6%
6	Respiratory Therapist	26	2.9%
7	Surgery Attendant	72	8.1%
8	Other Attendant	10	1.1%
9	Phlebotomist/Venipuncture/IV Team	36	4.0%
10	Clinical Laboratory Worker	8	0.9%
11	Technologist (non lab)	42	4.7%
12	Dentist	1	0.1%
13	Dental Hygienist	1	0.1%
14	Housekeeper	19	2.1%
15	Other, describe	59	6.6%
16	Paramedic	4	0.4%
17	Other Student	7	0.8%
18	CNA/HHA	6	0.7%
19	Laundry Worker	1	0.1%
20	Security	1	0.1%

Total Records: 893

6. Where did the injury occur?

1	Patient Room/Ward	266	29.9%
2	Outside Patient Room	11	1.2%
3	Emergency Department	61	6.8%
4	Intensive/Critical Care Unit	68	7.6%
5	Operating Room/Recovery	316	35.5%
6	Outpatient Clinic/Office	34	3.8%

Mar/17/2011

Page 1 of 5

EPINet Report for Needlestick and Sharp Object Injuries

8 Venipuncture Center	5	0.6%
9 Dialysis Facility	2	0.2%
10 Procedure Room	37	4.2%
11 Clinical Laboratories	12	1.3%
12 Autopsy/Pathology	4	0.4%
13 Service/Utility Area	10	1.1%
14 Other, describe	39	4.4%
16 Labor and Delivery Room	19	2.1%
17 Home-care	7	0.8%

Total Records: 891

7. Was the source patient identifiable?

1 Yes	836	93.7%
2 No	39	4.4%
3 Unknown	14	1.6%
4 N/A	3	0.3%

Total Records: 892

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

1 Yes	566	63.7%
2 No	301	33.9%
3 Unknown	3	0.3%
4 N/A	19	2.1%

Total Records: 889

9. Was the sharp item contaminated?

1 Contaminated	815	92.2%
2 Uncontaminated	25	2.8%
3 Unknown	44	5.0%

Total Records: 884

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

1 Unknown/not applicable	39	4.4%
2 Injection, intramuscular/subcutaneous	263	29.7%
3 Heparin or saline flush	4	0.5%
4 Other injection into IV injection site or port	13	1.5%
5 To connect IV line	5	0.6%
6 To start IV or setup heparin lock	41	4.6%
7 To draw a venous blood sample	90	10.1%
8 To draw an arterial blood sample	20	2.3%
9 To obtain a body fluid or tissue sample	17	1.9%
10 Fingerstick/heel stick	13	1.5%
11 Suturing	171	19.3%
12 Cutting	81	9.1%
13 Electrocautery	7	0.8%
14 To contain a specimen or pharmaceutical	2	0.2%

Mar/17/2011

Page 2 of 5

EPINet Report for Needlestick and Sharp Object Injuries

15 Other, describe	101	11.4%
16 To place an arterial/central line	13	1.5%
17 Drilling	7	0.8%
Total Records: 887		

11. When did the injury occur?

1 Before use of item	19	2.1%
2 During use of item	346	38.9%
3 Between steps of a multi-step procedure	99	11.1%
4 Disassembling device or equipment	36	4.0%
5 In preparation for reuse of reusable instruments	16	1.8%
6 While recapping a used needle	28	3.1%
7 Withdrawing a needle from rubber or other resistance	11	1.2%
8 Other after use, before disposal	156	17.5%
9 From item left on or near disposal container	2	0.2%
10 While putting the item into the disposal container	35	3.9%
11 After disposal, stuck by item protruding from disposal	5	0.6%
12 Item pierced side of disposal container	1	0.1%
13 After disposal, item protruding from trash bag or inapp	19	2.1%
14 Other, describe	82	9.2%
15 Restraining patient	2	0.2%
16 Device left on floor, table, bed or other inappropriate place	32	3.6%
Total Records: 889		

12. Type of device causing injury:

1 Syringe, disposable	320	36.4%
2 Syringe, prefilled cartridge	29	3.3%
3 Syringe, blood gas	12	1.4%
4 Syringe, other type	2	0.2%
5 Needle on IV tubing	4	0.5%
6 Needle, Winged steel	33	3.8%
7 IV catheter	27	3.1%
8 Needle/holder vacuum tube blood collection	20	2.3%
9 Needle, spinal or epidural	5	0.6%
10 Needle, unattached hypodermic	2	0.2%
11 Needle, arterial catheter introducer	4	0.5%
12 Needle, central line catheter introducer	5	0.6%
14 Needle, other vascular catheter	1	0.1%
15 Needle, other non vascular catheter	6	0.7%
28 Needle, unknown type	12	1.4%
29 Needle, describe	25	2.8%
30 Lancet	11	1.3%
31 Suture Needle	162	18.5%
32 Scalpel, reusable	29	3.3%
33 Razor	2	0.2%
35 Scissors	14	1.6%

EPINet Report for Needlestick and Sharp Object Injuries

36 Electrocautery Device	9	1.0%
37 Bone cutter	4	0.5%
38 Bone chip	4	0.5%
41 Trocar	6	0.7%
42 Vacuum tube, plastic	1	0.1%
44 Fingernails/teeth	2	0.2%
45 Scalpel, disposable	31	3.5%
46 Retractors, skin/bone hooks	11	1.3%
47 Staples, steel sutures	4	0.5%
48 Wire	11	1.3%
49 Pin	3	0.3%
50 Drill bit	5	0.6%
51 Pickup/forceps/hemostats	6	0.7%
58 Sharp item, not sure what kind	10	1.1%
59 Other sharp item (please describe)	33	3.8%
64 Vacuum tube, glass	1	0.1%
65 Specimen/test tube, glass	1	0.1%
78 Glass item, unknown type	5	0.6%
79 Glass item, other	6	0.7%

Total Records: 878

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

1 Yes	340	39.9%
2 No	445	52.2%
3 Unknown	67	7.9%

Total Records: 852

13a. If yes, was safety mechanism activated?

1 Yes, fully	36	11.1%
2 Yes, partially	77	23.7%
3 No	212	65.2%

Total Records: 325

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

1 Before activation	174	55.4%
2 During activation	86	27.4%
3 After activation	54	17.2%

Total Records: 314

14. Location of injury as selected from list:

Arm	16	1.8%
Back	1	0.1%
Face/Head	1	0.1%
Front	3	0.3%
Hand, left	516	58.8%
Hand, right	323	36.8%

Mar/17/2011

Page 4 of 5

EPINet Report for Needlestick and Sharp Object Injuries

Leg	17	1.9%
Total Records: 877		

15. Depth of the injury:

Superficial-little or no bleeding	506	57.2%
Moderate-skin punctured, some bleeding	319	36.1%
Severe-deep stick/cut, profuse bleeding	59	6.7%
Total Records: 884		

16. Did the sharp item penetrate?

1 Single pair of gloves	591	68.3%
2 Double pair of gloves	187	21.6%
3 No gloves	87	10.1%
Total Records: 865		

17. Handedness of the injured worker:

1 Right-handed	614	90.2%
2 Left-handed	67	9.8%
Total Records: 681		