

2011 EPINet Report: Needlestick and Sharp-Object Injuries

International Healthcare Worker Safety Center
University of Virginia

Reporting period: Jan 01, 2011 to Dec 31, 2011

- Facility where incident occurred: ALL
- Type facility where occurred: ALL
- 3. Dept where incident: ALL
- 4. Home/Employing department: ALL
- Type of facility where occurred: ALL
- 3. Dept where incident occurred: ALL
- 4. Home/Employing department: ALL
- 5. Job category: ALL
- 6. Where the injury occurred: ALL
- 7. Injured worker was original user: ALL
- 9. Was it contaminated? ALL
- 10. Original purpose of sharp item: ALL
- 11. How the injury occurred: INCLUDES injuries occurring before device was used
- 12. Type of device: ALL
- Device: ALL
- 17. Dominant hand of HCW: ALL
- 13. Was item a "safety design"? ALL

Hospital & rate information:

- Total # hospitals contributing data = 32 (9 teaching, 23 non-teaching)
- Total # injuries reported: 708
- Average daily census (ADC), all hospitals combined: 3638
- Percutaneous injury (PI) rate, all hospitals: 19.46 per 100 occupied beds
- **Teaching hospitals:** total PIs=527; total ADC=2542; PI rate= 20.73 per 100 occupied beds
- **Non-teaching hospitals:** total PIs=181; ADC=1096; PI rate=16.51 per 100 occupied beds

5. What is the job category of the injured worker?

1 Doctor (attending.staff) specialty	98	13.9%
2 Doctor (intern/resident/fellow) specialty	63	8.9%
3 Medical student	18	2.5%
4 Nurse	296	41.9%
5 Nursing student	4	0.6%
6 Respiratory therapist	21	3.0%
7 Surgery attendant	54	7.6%
8 Other attendant	9	1.3%
9 Phlebotomist/ Venipuncture/ IV team	25	3.5%
10 Clinical laboratory worker	3	0.4%
11 Technologist (non lab)	25	3.5%
14 Housekeeper	15	2.1%
15 Other, describe	59	8.4%
16 Paramedic	4	0.6%
17 Other student	7	1.0%
18 C.N.A./H.H.A.	5	0.7%

Total records: 706

6. Where did the injury occur?

1 Patient room/ward	234	33.2%
2 Outside patient room	16	2.3%
3 Emergency department	61	8.7%
4 Intensive/Critical care unit	31	4.4%
5 Operating room/Recovery	236	33.5%
6 Outpatient clinic/Office	28	4.0%
10 Procedure room	33	4.7%
11 Clinical laboratories	1	0.1%
12 Autopsy/Pathology	1	0.1%
13 Service/Utility area	7	1.0%

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14 Other, describe	40	5.7%
16 Labor and delivery room	12	1.7%
17 Home-care	4	0.6%
Total records: 704		

7. Was the source patient identifiable?

1 Yes	655	93.0%
2 No	22	3.1%
3 Unknown	14	2.0%
4 N/A	13	1.8%
Total records: 704		

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

1 Yes	453	65.4%
2 No	215	31.0%
3 Unknown	12	1.7%
4 N/A	13	1.9%
Total records: 693		

9. The sharp item was:

1 Contaminated	625	91.0%
2 Uncontaminated	29	4.2%
3 Unknown	33	4.8%
Total records: 687		

10. For what purpose was the sharp item originally used?

1 Unknown/not applicable	29	4.2%
2 Injection, intramuscular/subcutaneous	212	30.5%
3 Heparin or saline flush	3	0.4%
4 Other injection into IV injection site or port	7	1.0%
6 To start IV or setup heparin lock	42	6.0%
7 To draw a venous blood sample	61	8.8%
8 To draw an arterial blood sample	22	3.2%
9 To obtain a body fluid or tissue sample	14	2.0%
10 Fingerstick/heel stick	10	1.4%
11 Suturing	130	18.7%
12 Cutting	60	8.6%
13 Electrocautery	7	1.0%
14 To contain a specimen or pharmaceutical	1	0.1%
15 Other, describe	80	11.5%
16 To place an arterial/central line	12	1.7%
17 Drilling	5	0.7%
Total records: 695		

11. Did the injury occur?

1 Before use of item	18	2.6%
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2 During use of item	283	40.7%
3 Between steps of a multi-step procedure	82	11.8%
4 Disassembling device or equipment	22	3.2%
5 In preparation for reuse of reusable instruments	15	2.2%
6 While recapping a used needle	19	2.7%
7 Withdrawing a needle from rubber or other resistance	8	1.1%
8 Other after use, before disposal	108	15.5%
9 From item left on or near disposal container	2	0.3%
10 While putting the item into the disposal container	22	3.2%
11 After disposal, stuck by item protruding from disposal container	2	0.3%
12 Item pierced side of disposal container	3	0.4%
13 After disposal, item protruding from trash bag or inapp container	8	1.1%
14 Other, describe	65	9.3%
15 Restraining patient	3	0.4%
16 Device left on floor, table, bed or other inappropriate place	36	5.2%

Total records: 696

12. Which device caused the injury?

1 Disposable syringe	250	37.4%
2 Pre-filled cartridge syringe	15	2.2%
3 Blood gas syringe (ABG)	14	2.1%
4 Syringe, other type	8	1.2%
5 Needle on IV line	2	0.3%
6 Winged steel needle	17	2.5%
7 IV catheter stylet	26	3.9%
8 Vacuum tube blood collection holder/needle	12	1.8%
11 Arterial catheter introducer needle	1	0.1%
12 Central line catheter introducer needle	1	0.1%
14 Other vascular catheter needle	4	0.6%
15 Other non-vascular catheter needle	2	0.3%
28 Needle, not sure what kind	8	1.2%
29 Other needle, describe	40	6.0%
30 Lancet	3	0.4%
31 Suture needle	124	18.6%
32 Scalpel, reusable	27	4.0%
33 Razor	4	0.6%
35 Scissors	8	1.2%
36 Electro-cautery device	1	0.1%
37 Bone cutter	1	0.1%
39 Towel clip	3	0.4%
40 Microtome blade	1	0.1%
41 Trocar	4	0.6%
44 Fingernails/Teeth	3	0.4%
45 Scalpel, disposable	20	3.0%
46 Retractors, skin/bone hooks	9	1.3%
47 Staples/Steel sutures	1	0.1%
48 Wire (suture, fixation, guide wire)	10	1.5%

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50 Drill bit/Bur	5	0.7%
51 Pickups/Forceps/Hemostats/Clamps	2	0.3%
58 Sharp item, not sure what kind	9	1.3%
59 Other sharp item, describe	28	4.2%
65 Specimen/Test tube, glass	1	0.1%
79 Other glass item, describe	4	0.6%
Total records:	668	

13. If the item causing the injury was a needle or sharp medical device, was it a” safety design” with a shielded, recessed, retractable, or blunted needle or blade?

1 Yes	287	44.3%
2 No	326	50.3%
3 Unknown	35	5.4%
Total records:	648	

13a. If yes, was safety mechanism activated?

1 Yes, fully	21	8.0%
2 Yes, partially	71	27.0%
3 No	169	64.3%
4 Unknown	2	0.8%
Total records:	263	

13b. If yes, did the injury happen?

1 Before activation	125	50.4%
2 During activation	80	32.3%
3 After activation	40	16.1%
4 Unknown	3	1.2%
Total records:	248	

14. Location of the injury:

Arm	16	2.3%
Back	1	0.1%
Face/Head	1	0.1%
Foot	2	0.3%
Front	2	0.3%
Hand, left	410	60.0%
Hand, right	243	35.6%
Leg	8	1.2%
Total records:	683	

15. Was the injury?

1 Superficial-little or no bleeding	406	59.2%
2 Moderate-skin punctured, some bleeding	265	38.6%
3 Severe-deep stick/cut, profuse bleeding	15	2.2%

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Total records: 686

16. If injury was to the hand, did the sharp item penetrate?

1 Single pair of gloves	465	68.9%
2 Double pair of gloves	124	18.4%
3 No gloves	86	12.7%
Total records:	675	

17. Dominant hand of the injured worker:

1 Right-handed	611	90.0%
2 Left-handed	68	10.0%
Total records:	679	