

Table 4 Effectiveness of existing measures to prevent needlestick injury (NSI) among health care workers in teaching hospitals in Alexandria

Control measure	NSI (n = 438)		No NSI (n = 207)		OR	95% CI
	No.	%	No.	%		
Access to safety engineered devices (sheathed or retract after use)	61	13.9	71	34.3	0.41	0.21-0.73
Access to personal protective equipment	143	32.6	86	41.5	0.82	0.43-1.04
Awareness of standard precautions guidelines	283	64.6	139	67.1	0.90	0.46-1.53
Satisfactory adherence with infection control guidelines	127	29.0	123	59.4	0.42	0.26-0.71
Training in injection safety and appropriate work practices	35	8.0	56	27.0	0.14	0.03-0.40
Full immunization against hepatitis B	132	30.1	68	32.9	0.83	0.49-2.74
Double gloving practice	28	6.4	28	13.5	0.43	0.05-1.52
Having organized shift schedule	126	28.7	66	31.9	0.84	0.38-1.74
Having sufficient staff numbers	259	59.1	133	64.3	0.74	0.36-2.03
Periodic inservice health monitoring	30	6.8	19	9.2	0.68	0.38-1.05
Available written protocol for prompt reporting of NSI	42	9.6	80	38.6	0.37	0.02-0.57
Features of disposal containers						
Location (in close proximity to work area)	124	28.3	62	30.0	0.92	0.45-1.52
Design (rigid impermeable plastic box)	255	58.2	102	49.3	0.75	0.38-1.94
Design (open top box)	279	63.7	143	69.0	0.93	0.12-2.93
Work environment characteristics						
Lighting (bright)	307	70.1	156	75.4	0.83	0.53-2.54
Noise (silence)	134	30.6	124	59.9	0.34	0.02-0.71
Number of people at the bedside (only 1)	192	43.8	97	46.9	0.91	0.48-2.96
Condition of hands (dry)	279	63.7	150	72.5	0.74	0.18-0.19
Visibility (good)	306	69.9	145	70.0	0.95	0.63-2.83
Floor condition (clean)	195	44.5	98	47.3	0.78	0.26-1.95
Room temperature (comfortable)	177	40.4	150	72.5	0.32	0.06-0.67

OR = odds ratio, CI = confidence interval.