



Preliminary Report

Needlesticks and Sharp-Object Injury

Belgium, 1 June 2003 - 31 January 2005,

35 general hospitals (sites) or 22 hospital fusions*



Total NI cases = 928 / *19 non-teaching, 3 teaching hospital fusions

JOB CATEGORY	N	%
MEDICAL DOCTORS		
Medical doctor	31	3.4
Dentist	0	0.0
Doctor (In specialised training)	33	3.6
NURSES		
Nurse	587	63.7
Midwife	17	1.9
Perfusionist	0	0.0
CARE ASSISTANTS		
Care assistant	56	6.1
Logistic assistant	0	0.0
Dental assistant	0	0.0
PARAMEDICS		
Clinical laboratory worker	30	3.3
Physiotherapist	0	0.0
Occupational therapist	0	0.0
Dietician	0	0.0
SERVICE STAFF		
Cleaning personnel	75	8.1
Laundry	1	0.1
Transport/waste	5	0.5
Technician	4	0.4
Stretcher-bearer	2	0.2
STUDENTS		
Medical student	22	2.4
Dental student	0	0.0
Nursing student	38	4.1
Other students	7	0.8
OTHERS	13	1.4
WHERE INJURY OCCURED	N	%
Patient room	347	38.2
Outside patient room	110	12.1
Emergency department	68	7.5
Intensive/critical care unit	26	2.9
Operating room/recovery	165	18.3
Outpatient clinic/office	27	2.9
Dialysis facility	20	2.2
Radiology/ECG/etc	21	2.3
Clinical laboratories	24	2.6
Service/utility area	19	2.1
Labor and delivery	14	1.5
Psychiatric department	12	1.3
Other	55	6.1
ORIGINAL PURPOSE OF SHARP ITEM	N	%
Unknown / not applicable	99	11.5
ADMINISTRATION OF FLUIDS		
IV injection	43	5.0
Via I.V. line	43	4.9
IM, SC, ID injection	186	21.6
PLACING OF		
Intra venous line	88	10.2
Intra-arterial or central line	9	1.1
DRAWING OF		
Arterial blood	24	2.8
Venous blood	129	15.0
Finger stick / Heel stick	56	6.5
Other body fluids	8	0.9
CUTTING		
Cutting	73	8.5
Electro-surgery	1	0.1
SUTURING		
Suturing	58	6.7
Placing staples, steel sutures	0	0.0
OTHER		
Obtain tissue sample	9	1.1
Drill	1	0.1
Contain specimen/ pharmaceutical	2	0.2
Other	46	5.3

WHEN INJURY OCCURED	N	%
DURING PREPARATION OF ITEM	13	1.5
DURING USE OF ITEM		
During use of item	162	18.2
Restraining patient	20	2.3
Between steps of multistep procedure	56	6.3
DURING WITHDRAWING OF ITEM		
Withdrawing from resistant material	20	2.3
Disassembling device	28	3.2
In preparation for reuse of reusable instruments	25	2.8
Recapping	55	6.2
After use, before disposal	200	22.5
DURING DISPOSAL OF ITEM		
Item left on or near disposal container	18	2.1
Device left on floor, table, bed or other inappropriate place	105	11.8
Putting item into disposal container	55	6.2
Stuck by item protruding from the opening of disposal container	23	2.6
Stuck by item piercing side of disposal container	23	2.6
Stuck by item protruding from trash bag or waste container	3	0.4
OTHER	71	8.1
DEVICE CAUSING INJURY	N	%
NEEDLES		
IV, IM, SC, ID (with syringe)	235	27.1
Port-a-cath needle	18	2.1
Winged steel needle	46	5.4
IV catheter (stylet)	92	10.6
Vacuum tube blood collection needle	85	9.8
Spinal/epidural catheter introducer	2	0.2
Arterial catheter introducer needle	11	1.3
Fill needle	13	1.5
Intra-articular needle	0	0.0
Needle, unknown type	78	8.9
Other	57	6.6
SHARP INSTRUMENTS		
Surgical scalpel (disposal)	31	3.6
Surgical scalpel (reusable)	20	2.3
Lancet	49	5.6
Bovie electrocautery device	0	0.0
Razor	6	0.7
Microtome blade	4	0.5
Scissors	7	0.8
Trocar	4	0.5
Towel clip, tweezers	3	0.4
Skin/bone hooks, retractors	0	0.0
Pin	2	0.2
Suture needle	55	6.3
Staples, steel sutures	0	0.0
Wire	3	0.4
Tooth	5	0.6
Finger nails	5	0.6
Other	10	1.2
GLASS / PLASTIC		
Ampoule	2	0.2
Plastic vacuum tube	0	0.0
Glass vacuum tube	2	0.2
Glass Slide	0	0.0
Pipette	1	0.1
Plastic specimen/test tube	0	0.0
Glass specimen/test tube	1	0.1
Capillary tube	2	0.2
Glass item, unknown type	4	0.5
Other glass item	4	0.5

INJURED WORKER ORIGINAL USER OF ITEM?	N	%
Yes	505	57.6
No	344	39.2
Unknown	28	3.2
SHARP ITEM CONTAMINATED WITH BLOOD OR OTHER BODY FLUID?	N	%
Yes	681	76.8
No	29	3.3
Unknown	177	19.9
WAS NEEDLE A SAFETY DESIGN?	N	%
Yes	52	6.6
No	545	68.8
Unknown	195	24.6
DEPTH OF INJURY	N	%
Superficial (little/no bleeding)	293	34.2
Moderate (skin punctured, some bleeding)	532	62.1
Severe (deep stick/cut, profuse bleeding)	32	3.7
BODY PARTS INJURED	N	%
Face/head	3	0.4
Back	0	0.0
Front	5	0.6
Arm	21	2.7
Hand, left	346	44.4
Hand, right	384	49.2
Leg	13	1.7
Foot	7	0.9
GLOVES – DID ITEM PENETRATED?	N	%
Single pair of gloves	252	31.9
Double pair of gloves	14	1.8
No gloves	525	66.4
DISPOSAL CONTAINER NEAR BY?	N	%
Yes	347	42.4
No	331	28.2
Not applicable	240	29.3
SOURCE PATIENT IDENTIFIABLE?	N	%
Yes	688	75.3
No	159	14.4
Unknown	67	7.3
SOURCE PATIENT CONTAMINATED ?	N	%
Yes	87	12.7
No	254	37.2
Unknown	342	50.1
TYPE OF FACILITY	N	%
Non-teaching hospital	730	76.3
Teaching hospital	248	25.7



Preliminary Report
Blood and Body Fluid Exposure
Belgium, 1 June 2003 - 31 January 2005,
35 general hospitals (sites) or 22 hospital fusions*
 Total BBF cases = 50 / *19 non-teaching, 3 teaching hospital fusions



JOB Category	N	%
MEDICAL DOCTORS		
Doctor	3	6.0
Dentist	0	0.0
Doctor (in specialised training)	1	2.0
NURSES		
Nurse	34	68.0
Midwife	2	4.0
Perfusionist	0	0.0
CARE ASSISTANTS		
Care assistant	1	2.0
Logistic assistant	0	0.0
Dental assistant	0	0.0
PARAMEDICS		
Clinical laboratory worker	1	2.0
Physiotherapist	1	2.0
Occupational therapist	0	0.0
Dietician	0	0.0
SERVICE STAFF		
Cleaning personnel	1	2.0
Laundry	0	0.0
Transport/waste	1	2.0
Technician	0	0.0
Stretcher-bearer	0	0.0
STUDENTS		
Medical student	4	8.0
Dental student	0	0.0
Nursing student	0	0.0
Other students	0	0.0
OTHERS	1	2.0

WHERE EXPOSURE OCCURED	N	%
Patient room	18	36.0
Outside patient room	1	2.0
Emergency department	4	8.0
Intensive/critical care unit	5	10.0
Operating room/recovery	8	16.0
Outpatient clinic/office	3	6.0
Dialysis facility	2	4.0
Radiology/ECG/etc	1	2.0
Clinical laboratories	1	2.0
Service/utility area	1	2.0
Labor and delivery	3	6.0
Psychiatric department	0	0.0
Other	3	6.0

BBF† INVOLVED IN EXPOSURE (more than one item can be checked) ‡	N	%
Blood or blood products	37	74.0
Vomit	0	0.0
Sputum	3	6.0
Saliva	5	10.0
Cerebro-spinal fluid	1	2.0
Peritoneal fluid	0	0.0
Pleural fluid	0	0.0
Amniotic fluid	0	0.0
Urine	2	4.0
Other body fluid	8	16.0

WAS THE BODY FLUID, OTHER THAN BLOOD, VISIBLY CONTAMINATED WITH BLOOD?	N	%
Yes		
No		
Unknown		

EXPOSED PART(S) (more than one item can be checked) ‡	N	%
Intact skin	17	34.0
Non-intact skin	6	12.0
Eyes (conjunctiva)	29	58.0
Nose (mucosa)	3	6.0
Mouth (mucosa)	5	10.0
Other exposed parts	5	10.0

DID THE BLOOD OR BODY FLUID (more than one item can be checked) ‡	N	%
Touch unprotected skin	34	68.0
Touch skin through gap between protective garments	1	2.0
Soak through protective garments	2	4.0
Soak through clothing	2	4.0

BARRIER ITEMS WORN AT TIME OF EXPOSURE (more than one item can be checked) ‡	N	%
Single pair gloves	29	58.0
Double pair gloves	2	4.0
Goggles	1	2.0
Eyeglasses (not protective)	1	2.0
Faceshield	0	0.0
Surgical mask	12	24.0
Permeable clothing/apron	4	8.0
Semi-permeable clothing/apron	3	10.0
Not permeable clothing/apron	5	6.0
Other	1	2.0

CAUSE OF EXPOSURE	N	%
Direct patient contact	15	31.4
Specimen container leaked/spilled	5	10.6
Specimen container broke	1	2.1
IV tubing/bag/pump leaked	0	0.0
Other body fluid container spilled/leaked	5	10.6
Touched contaminated equipment/surface	1	2.1
Touched contaminated drapes/sheets, gown	0	0.0
Feeding/ventilator/other tube separated/leaked/spilled	2	4.3
Other	0	0.0
Unknown	0	0.0

LENGTH OF TIME BBF IN CONTACT WITH SKIN OR MUCOUS MEMBRANES	N	%
Less than 5 minutes		
5 – 14 minutes		
15 minutes – 1 hour		
More than 1 hour		

AMOUNT F BBF THAT CAME IN CONTACT WITH SKIN OR MUCOUS MEMBRANES	N	%
Small amount (up to 5 cc)	43	89.6
Moderate amount (up to 50cc)	4	8.3
Large amount (> 50 cc)	1	2.1

EXPOSURE LOCATION	N	%
Largest exposure:		
Face/head	28	63.6
Back	0	0.0
Front	2	4.6
Arm	0	0.0
Hand, left	0	0.0
Hand, right	14	31.8
Leg	0	0.0
Foot	0	0.0

MEDIUM-SIZED EXPOSURE	N	%
Face/head	10	58.8
Back	0	0.0
Front	1	5.9
Arm	0	0.0
Hand, left	0	0.0
Hand, right	6	35.3
Leg	0	0.0
Foot	0	0.0

SMALLEST-SIZED EXPOSURE	N	%
Face/head	0	0.0
Back	0	0.0
Front	1	10
Arm	0	0.0
Hand, left	0	0.0
Hand, right	2	20.0
Leg	0	0.0
Foot	7	70.0

SOURCE PATIENT IDENTIFIABLE ?	N	%
Yes	44	88.0
No	3	6.0
Unknown	2	4.0
Not available	1	2.0

SOURCE PATIENT CONTAMINATED?	N	%
Yes	21	50.0
No	9	21.4
Unknown	12	28.6

TYPE OF FACILITY	N	%
Non-teaching hospital	31	62.0
Teaching hospital	19	38.0

† BBF = blood or body fluids
 ‡ Because more than one item can be checked in this category, percentages total more than 100%