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**MORBIDITY AND MORTALITY WEEKLY REPORT**

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## Effectiveness in Disease and Injury Prevention

### **Counseling Practices of Primary-Care Physicians — North Carolina, 1991**

Because 80% of the U.S. population visits a physician each year (1), physicians are an important source for health education. In particular, physicians have unique opportunities to influence and modify health-risk behaviors of their patients. During 1991, the North Carolina Department of Environment, Health, and Natural Resources (DEHNR), the University of North Carolina at Chapel Hill, and CDC conducted a survey of nonmilitary primary-care physicians practicing in North Carolina regarding counseling and referral practices. This report summarizes results of this survey, including estimates of the proportion of primary-care physicians who counsel and/or refer for treatment patients who smoke, abuse drugs or alcohol, or have diet- or nutrition-related problems.

A primary-care physician was defined as a physician specializing in general practice, family practice, internal medicine, or obstetrics and/or gynecology (OB/GYN) who graduated from medical school in 1990 or earlier. A stratified sample of 1200 physicians in the four specialty groups in North Carolina was selected using a national sampling frame; 514 eligible physicians responded. The Council on American Survey Research Organizations' (2) response rate (58.6%) was used to account for unknown eligibility status of nonresponding physicians. Sample weights were adjusted to compensate for substantial differences in response rates. Software for Survey Data Analysis (SUDAAN) (3) was used to provide weighted estimates for the population of primary-care physicians practicing in North Carolina.

Physicians were asked about their attitudes and beliefs regarding counseling. In addition, physicians were asked what percentage of their patients who they believe smoke, abuse drugs or alcohol, or have diet/nutrition problems they counseled and/or referred for treatment. Physicians who reported counseling and/or referring more than 80% of these patients were classified as "routinely counseling and/or referring at-risk patients."

Of the 514 respondents, 90% were white, 87% were male, and 72% were board certified. The mean age of respondents was 46.8 years (range: 26–87 years) and the mean percentage of professional time spent providing patient care was 86% (range: 10%–100%).

## Primary-Care Physicians – Continued

Most (96%) physicians agreed that primary-care physicians should assist asymptomatic patients in reducing behavioral risk factors. Routine counseling and/or referral was reported by 51.3% of physicians for patients who smoke, 50.0% for patients who abuse drugs, 34.5% for patients who abuse alcohol, and 18.9% for patients with diet/nutrition problems (Table 1).

White physicians, female physicians, and physicians aged 26–44 years generally reported higher counseling and/or referral rates than other subgroups. However,

**TABLE 1. Percentage of primary-care physicians who routinely\* counseled at-risk patients, by physician characteristics – North Carolina, 1991**

Characteristic	No.†	Poor diet		Alcohol abuse		Drug abuse		Cigarette smoking	
		%	(95%CI‡)	%	(95% CI)	%	(95% CI)	%	(95% CI)
<b>Race</b>									
White	462	19.1	(± 3.5)	34.5	(± 4.5)	50.2	(± 4.7)	52.3	(± 4.6)
Other than white	51	14.6	(± 9.4)	32.1	(± 14.1)	47.2	(± 15.5)	39.0	(± 14.6)
<b>Sex</b>									
Female	69	24.5	(± 9.9)	33.6	(± 11.2)	52.8	(± 11.7)	60.1	(± 11.6)
Male	444	18.1	(± 3.6)	34.7	(± 4.6)	49.7	(± 4.8)	50.0	(± 4.8)
<b>Age (yrs)</b>									
26–44	263	21.4	(± 4.7)	36.3	(± 5.8)	54.1	(± 5.9)	54.7	(± 6.0)
45–87	248	14.9	(± 4.5)	31.9	(± 6.3)	44.3	(± 6.7)	45.6	(± 6.7)
<b>Board certified</b>									
Yes	364	18.3	(± 3.8)	34.1	(± 4.9)	50.3	(± 5.1)	51.8	(± 5.1)
No	144	21.4	(± 7.3)	34.9	(± 8.4)	49.0	(± 9.1)	51.2	(± 9.1)
<b>Practice setting</b>									
Solo	159	23.3	(± 7.0)	33.1	(± 7.9)	48.2	(± 8.4)	51.4	(± 8.4)
Group	238	15.9	(± 4.6)	34.9	(± 6.3)	51.1	(± 6.4)	55.2	(± 6.3)
Other	116	20.5	(± 6.8)	35.4	(± 8.7)	50.1	(± 9.1)	43.9	(± 9.0)
<b>Specialty</b>									
Internal medicine	80	18.1	(± 8.7)	25.0	(± 10.4)	44.5	(± 13.4)	28.9	(± 12.2)
General practice	103	17.5	(± 6.2)	37.4	(± 8.6)	49.5	(± 8.8)	55.7	(± 8.7)
Family practice	218	22.0	(± 5.5)	30.9	(± 5.9)	52.6	(± 5.9)	52.8	(± 5.9)
OB/GYN	113	16.6	(± 6.5)	38.7	(± 9.2)	48.5	(± 9.3)	48.6	(± 9.3)
<b>Medical school location</b>									
North Carolina	194	16.6	(± 5.1)	31.6	(± 7.1)	49.6	(± 7.5)	51.5	(± 7.3)
Other southern school	146	20.7	(± 6.7)	39.2	(± 8.1)	54.8	(± 8.1)	52.7	(± 8.2)
Midwest	62	19.1	(± 9.4)	46.3	(± 12.7)	50.5	(± 12.6)	52.2	(± 12.6)
Northeast	54	26.0	(± 11.2)	30.1	(± 11.5)	45.8	(± 13.2)	42.5	(± 12.9)
International <sup>§</sup>	28	—	—	—	—	—	—	—	—
West <sup>¶</sup>	16	—	—	—	—	—	—	—	—
<b>Total</b>	<b>514</b>	<b>18.9</b>	<b>(± 3.4)</b>	<b>34.5</b>	<b>(± 4.3)</b>	<b>50.1</b>	<b>(± 4.5)</b>	<b>51.3</b>	<b>(± 4.4)</b>

\*Physicians who counseled and/or referred more than 80% of patients they believed practiced specific health-risk behaviors.

†Because of missing data, numbers may not total 514.

‡Confidence interval.

§Estimates based on fewer than 30 physicians are not shown because numbers were too small to analyze.

*Primary-Care Physicians – Continued*

patterns did not vary consistently by location of medical school, board certification, or practice setting. The percentage of physicians specializing in internal medicine who routinely provided smoking counseling was substantially lower than that for physicians in general practice, family practice, or OB/GYN (Figure 1).

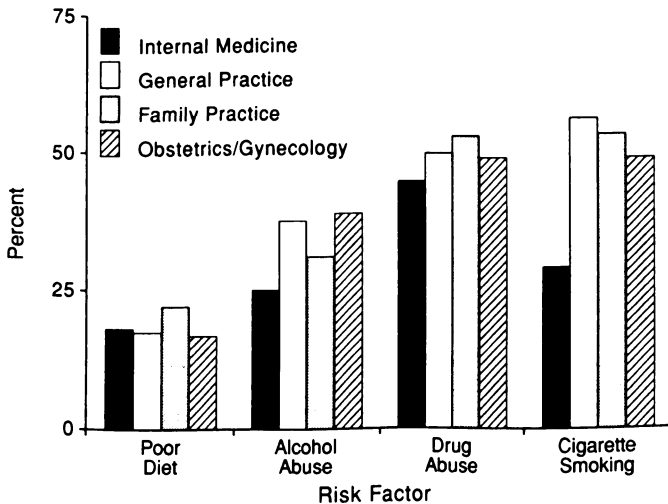
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**Editorial Note:** Behavioral risk factors such as smoking, alcohol abuse, drug abuse, and poor eating habits are major contributors to chronic disease morbidity and mortality. Health education, especially when offered through primary-care physicians, can be an effective tool in reducing the prevalence of these risk factors.

In North Carolina, the percentage of physicians who reported providing counseling/referral services for specific behaviors (18.9%–51.3%) is substantially lower than the percentage (75%) targeted by the national health objectives for the year 2000 (1). The findings in North Carolina may be overestimated because of self-reported data and a response rate of 58.6%. However, individual and combined response rates were comparable to response rates in previous self-reported physician surveys (34%–78%) (4).

Partners-in-Prevention, a cooperative initiative between North Carolina medical societies and DEHNR, will use the findings from this study to identify and help address obstacles to providing health education through primary-care physicians. In addition, this survey will be modified and used periodically to monitor preventive practices, to assess barriers to providing preventive services, and to identify effective methods of increasing the use of health education and preventive services by primary-care physicians.

**FIGURE 1. Percentage of primary-care physicians who routinely\* counseled at-risk patients, by physician specialty – North Carolina, 1991**



\*Physicians who counseled and/or referred more than 80% of patients they believed practiced specific health-risk behaviors.

*Primary-Care Physicians — Continued**References*

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3. Shah BV. Software for Survey Data Analysis (SUDAAN) version 5.30 [Software documentation]. Research Triangle Park, North Carolina: Research Triangle Institute, 1989.
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### **Surgical Sterilization Among Women and Use of Condoms — Baltimore, 1989–1990**

Since 1980, surgical sterilization among women has become the most common contraceptive method used among women aged >30 years in the United States and is used by 28% of women aged 15–44 years (1). A previous report of women in drug treatment suggested that women who have been surgically sterilized were less likely to report condom use—an effective measure for prevention of human immunodeficiency virus (HIV) infection and sexually transmitted diseases (STDs)—than were nonsterilized women (2). This report summarizes a study of the relation between surgical sterilization, risk status for STDs and HIV, and use of condoms among women who reside in two inner-city, minority neighborhoods in Baltimore.

During November 1989–February 1990, as part of the baseline evaluation for a community-based HIV-prevention program, the Baltimore City Health Department and Johns Hopkins University, in cooperation with CDC, interviewed 766 women aged 17–35 years residing in the two neighborhoods by telephone using random-digit dialing. Self-reported data from sterilized and nonsterilized women were analyzed and risk indices were created for personal risk\* and partner risk†. Of the 766 women, 210 (44 sterilized and 166 nonsterilized) women aged 20–35 years were asked additional questions about their attitudes toward condom use.

Surgical sterilization increased directly with age to 45% among women aged 30–35 years (Table 1). In comparison, condom use declined with increasing age, regardless of sterilization status. Analysis including stratification by age group indicated that sterilized and nonsterilized women were similar by education level, race, and work status; however, sterilized women were more likely to have ever been pregnant and ever been married (Table 2).

Women in both groups were similar in attitudes about HIV and HIV prevention, including perceptions of community norms; perceived self-efficacy in avoiding HIV infection; perceived condom efficacy for STD/HIV protection; condom acceptability; concern about HIV; concerns about injecting-drug use, HIV, and STDs; the ability to communicate with partners about HIV infection; and the ability to refuse sex. However, sterilized women were somewhat less likely (71%) than nonsterilized women (90%) to believe that condoms prevent pregnancy ( $p=0.02$ ).

\*Defined as having more than one sex partner during the year preceding the survey, using injecting drugs during the month preceding the survey, ever being in drug treatment, receiving money or drugs for sex, receiving STD treatment during the 6 months preceding the survey, using drugs at last sexual episode, or using alcohol at last sexual episode (which is associated with nonuse of condoms).

†Defined as, during the 6 months preceding the survey, having sex with someone who had an STD, had AIDS, was a prostitute, was an injecting-drug user, or was bisexual/homosexual.

*Surgical Sterilization – Continued*

More than one third of both sterilized (35%) and nonsterilized (37%) women had a personal and/or a partner risk factor for STDs (Table 2). Although nonsterilized women were more likely to report personal risk factors for STD/HIV infection and sterilized women were more likely to report risk factors for their partners, these differences were not statistically significant (Table 2).

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**TABLE 1. Percentage of women who had undergone surgical sterilization, and current condom use, by age – Baltimore, 1989–1990\***

Age group (yrs)	% Surgical sterilization	% Current condom use among all women			
		Always	Most of time	Sometimes	Never
<20	0	32.9	20.7	24.4	22.0
20–24	5.3	17.2	13.9	34.4	34.4
25–29	27.7	12.0	3.8	26.1	58.2
30–35	45.1	6.2	8.1	20.1	65.6

\*Sample size = 766.

**TABLE 2. Women who had or had not been sterilized, by HIV and sexually transmitted disease (STD) risk factors, consistency of condom use, and other selected characteristics, and by age-stratified analysis – Baltimore, 1989–1990\***

Characteristic	Nonage-stratified analysis			Age-stratified analysis <sup>†</sup>			
	% Sterilized women	% Nonsterilized women	Odds ratio	Odds ratio	Chi-square	p value	
Education (≥12 yrs)	83.1	88.5				NS <sup>‡</sup>	
Work outside the home	67.5	69.1				NS	
Ever married	62.1	33.9	3.2	1.9	8.7	0.0031	
Ever pregnant	96.4	76.3	8.7	7.2	22.2	<0.0001	
<b>Risk factors for HIV/STD</b>							
Any personal risk factor <sup>*</sup>	26.6	34.1				NS	
Any partner risk factor <sup>**</sup>	14.4	11.6				NS	
Any personal or partner risk factor	35.0	37.0				NS	
<b>Consistency of condom use</b>							
Always	3.2	14.0					
Most of the time	2.7	10.7					
Sometimes	16.1	29.6					
Never	78.0	45.7					
Always, Most of time, Sometimes (versus Never)	22.0	54.3	0.2	0.3	32.3	<0.0001	

\*Sample size = 657; aged 20–35 years.

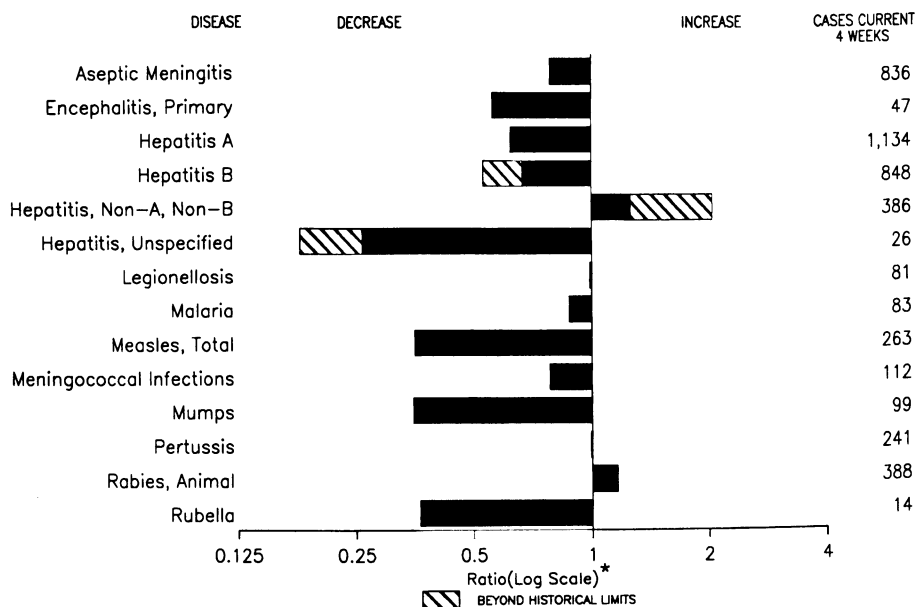
<sup>†</sup>Mantel-Haentzel.

<sup>‡</sup>Not significant.

<sup>\*</sup>Defined as having more than one sex partner during the year preceding the survey, using injecting drugs during the month preceding the survey, ever being in drug treatment, receiving money or drugs for sex, receiving STD treatment during the 6 months preceding the survey, using drugs at last sexual episode, or using alcohol at last sexual episode (which is associated with nonuse of condoms).

<sup>\*\*</sup>Defined as, during the 6 months preceding the survey, having sex with someone who had an STD, had AIDS, was a prostitute, was an injecting-drug user, or was bisexual/homosexual.

**FIGURE I. Notifiable disease reports, comparison of 4-week totals ending August 1, 1992, with historical data — United States**



\*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending August 1, 1992 (31st Week)**

	Cum. 1992		Cum. 1992
AIDS*	27,377	Measles: imported	98
Anthrax	-	indigenous	1,424
Botulism: Foodborne	10	Plague	3
Infant	32	Poliomyelitis, Paralytic <sup>5</sup>	-
Other	2	Psittacosis	50
Brucellosis	43	Rabies, human	-
Cholera <sup>1</sup>	92	Syphilis, primary & secondary	20,110
Congenital rubella syndrome	7	Syphilis, congenital, age < 1 year <sup>1</sup>	697
Diphtheria	3	Tetanus	9
Encephalitis, post-infectious	87	Toxic shock syndrome	148
Gonorrhea	287,585	Trichinosis	17
<i>Haemophilus influenzae</i> (invasive disease)	894	Tuberculosis	12,794
Hansen Disease	104	Tularemia	85
Leptospirosis	18	Typhoid fever	193
Lyme Disease	3,345	Typhus fever, tickborne (RMSF)	209

\*Updated monthly; last update August 1, 1992.

<sup>1</sup>Delayed reports from California.

<sup>5</sup>Two cases of suspected poliomyelitis have been reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated.

<sup>1</sup>Updates for first quarter 1992.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending August 1, 1992, and August 3, 1991 (31st Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
			Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992		
UNITED STATES	27,377	3,797	316	87	287,585	344,918	11,483	9,217	4,360	390	745	3,345
NEW ENGLAND	906	162	20	-	6,040	8,472	344	343	46	15	35	605
Maine	35	14	2	-	48	100	23	17	5	-	1	4
N.H.	30	7	2	-	82	154	25	24	12	1	3	18
Vt.	13	8	3	-	15	31	5	9	9	-	2	3
Mass.	492	71	10	-	2,210	3,681	172	263	17	14	19	86
R.I.	67	62	3	-	434	698	81	17	3	-	10	129
Conn.	269	-	-	-	3,251	3,808	38	13	-	-	-	365
MID. ATLANTIC	6,806	396	16	8	30,147	41,447	885	1,215	226	14	220	2,019
Upstate N.Y.	752	180	-	-	5,845	7,256	214	294	135	7	86	1,287
N.Y. City	3,901	79	4	1	10,148	15,914	343	213	4	-	3	8
N.J.	1,362	-	-	-	4,350	6,846	135	311	67	-	27	271
Pa.	791	137	12	7	9,804	11,431	193	397	20	7	104	453
E.N. CENTRAL	2,520	524	82	26	54,909	63,730	1,676	1,396	774	24	166	70
Ohio	454	148	24	2	16,256	19,401	268	143	59	4	77	33
Ind.	262	83	9	11	5,042	6,394	505	483	374	8	18	23
Ill.	1,155	112	28	6	18,285	18,730	297	143	39	4	11	6
Mich.	500	173	19	7	13,089	14,685	83	362	255	8	38	8
Wis.	149	8	2	-	2,237	4,520	523	265	47	-	22	-
W.N. CENTRAL	762	206	19	6	12,838	16,597	1,364	372	158	19	48	153
Minn.	138	20	3	-	1,694	1,618	416	45	13	2	3	63
Iowa	54	27	-	3	916	1,167	23	24	4	2	14	12
Mo.	387	87	8	-	6,995	10,424	468	240	120	13	16	56
N. Dak.	8	1	1	-	39	40	69	1	3	1	1	1
S. Dak.	6	7	-	1	103	205	180	3	-	-	-	-
Nebr.	34	10	2	2	8	1,104	109	15	7	1	12	10
Kans.	135	54	5	-	3,083	2,039	99	44	11	-	2	11
S. ATLANTIC	6,452	720	64	35	90,308	105,312	714	1,537	596	58	108	251
Del.	79	30	6	-	1,047	1,554	25	147	123	1	16	101
Md.	757	86	11	-	8,925	11,026	133	230	23	5	20	53
D.C.	423	14	1	-	3,924	5,782	12	48	233	-	7	1
Va.	392	105	19	9	10,346	10,131	61	105	23	20	10	52
W. Va.	34	7	4	-	516	720	5	33	1	12	-	3
N.C.	436	96	19	-	14,917	21,059	63	269	60	-	19	22
S.C.	221	7	-	-	6,692	8,186	16	33	-	1	16	1
Ga.	842	92	2	-	27,454	25,441	97	173	58	-	5	2
Fla.	3,268	283	2	26	16,487	21,413	302	499	75	19	15	16
E.S. CENTRAL	860	237	12	-	27,040	32,753	178	778	1,354	2	42	44
Ky.	128	74	7	-	2,840	3,499	48	46	3	-	18	14
Tenn.	265	56	2	-	8,570	11,996	80	652	1,339	-	18	23
Ala.	313	66	2	-	9,094	8,908	29	77	11	1	6	7
Miss.	154	41	1	-	6,536	8,350	21	3	1	1	-	-
W.S. CENTRAL	2,566	494	32	4	32,175	39,085	1,097	1,195	80	94	12	75
Ark.	127	5	7	-	4,540	4,730	53	49	7	4	-	10
La.	466	38	3	1	8,978	9,159	96	110	33	2	1	4
Okla.	147	-	3	2	3,214	4,037	122	117	24	3	6	20
Tex.	1,826	451	19	1	15,443	21,159	826	919	16	85	5	41
MOUNTAIN	788	135	13	4	7,047	7,396	1,648	411	161	33	58	5
Mont.	14	2	1	1	60	64	48	23	25	-	9	-
Idaho	19	19	-	-	65	85	37	53	2	-	4	2
Wyo.	2	-	1	-	31	56	3	2	10	-	1	1
Colo.	264	43	6	1	2,582	2,149	471	65	58	17	10	-
N. Mex.	66	10	3	1	531	675	167	111	15	7	2	1
Ariz.	254	40	1	-	2,478	2,743	677	86	20	4	18	-
Utah	54	2	1	1	158	184	194	10	19	5	2	1
Nev.	115	19	-	-	1,142	1,440	51	61	12	-	12	-
PACIFIC	5,717	923	58	4	27,081	30,126	3,577	1,970	965	131	56	123
Wash.	314	-	1	-	2,226	2,736	415	200	85	7	8	3
Oreg.	161	-	-	-	982	1,208	208	174	46	7	-	-
Calif.	5,146	861	54	3	23,162	25,269	2,786	1,576	672	109	47	119
Alaska	11	9	3	-	429	458	31	8	2	1	-	-
Hawaii	85	53	-	1	282	455	137	12	160	7	1	1
Guam	-	2	-	-	48	5	5	1	-	6	-	1
P.R.	877	111	1	-	119	378	23	272	108	16	1	-
V.I.	2	-	-	-	63	259	2	5	-	-	-	-
Amer. Samoa	-	-	-	-	26	29	1	1	-	-	-	-
C.N.M.I.	-	-	-	-	49	48	1	-	-	-	-	-

N: Not notifiable

U: Unavailable

C.N.M.I.: Commonwealth of the Northern Mariana Islands

\*Updated monthly; last update August 1, 1992.

**TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 1, 1992, and August 3, 1991 (31st Week)**

Reporting Area	Malaria		Measles (Rubeola)				Menin- gococcal Infections	Mumps		Pertussis			Rubella		
	Cum. 1992	1992	Indigenous		Imported*			Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	1992	Cum. 1992
			1992	Cum. 1992	1992	Cum. 1992	Cum. 1991								
UNITED STATES	504	155	1,424	2	98	8,102	1,418	16	1,673	62	1,041	1,368	4	122	1,069
NEW ENGLAND	28	-	48	-	7	60	90	1	11	5	92	200	-	6	4
Maine	-	-	2	-	-	2	8	-	-	-	4	45	-	1	-
N.H.	3	-	15	-	-	-	5	1	3	1	27	17	-	-	1
Vt.	-	-	-	-	-	5	4	-	-	-	2	3	-	-	-
Mass.	14	-	11	-	3	27	37	-	2	4	40	116	-	-	2
R.I.	4	-	20	-	-	2	1	-	-	-	-	-	-	4	-
Conn.	7	-	-	-	4	24	35	-	6	-	19	19	-	1	1
MID. ATLANTIC	143	-	175	-	12	4,454	162	2	118	7	98	137	2	16	562
Upstate N.Y.	21	-	79	-	3	381	77	-	48	3	28	76	-	11	536
N.Y. City	77	-	42	-	8	1,600	14	-	21	-	15	19	-	-	2
N.J.	24	-	49	-	1	1,017	25	-	9	-	16	10	-	2	2
Pa.	21	-	5	-	-	1,456	46	2	40	4	39	32	2	3	22
E.N. CENTRAL	33	-	23	-	13	77	218	1	217	4	78	268	-	7	175
Ohio	6	-	-	-	6	3	56	-	82	-	32	71	-	-	147
Ind.	9	-	20	-	1	33	-	7	2	17	47	-	-	2	-
Ill.	8	-	1	-	4	25	57	-	63	-	9	54	-	7	5
Mich.	8	-	2	-	2	39	56	1	57	1	6	23	-	-	20
Wis.	2	-	-	-	1	9	16	-	8	1	14	73	-	-	1
W.N. CENTRAL	27	-	6	-	8	40	65	-	60	6	92	100	-	4	16
Minn.	13	-	5	-	5	10	9	-	19	3	32	41	-	-	6
Iowa	2	-	-	-	3	15	7	-	10	-	3	11	-	-	5
Mo.	8	-	-	-	-	1	20	-	23	-	32	32	-	-	5
N. Dak.	-	-	-	-	-	-	1	-	2	-	8	2	-	-	-
S. Dak.	1	-	-	-	-	-	1	-	-	-	5	3	-	-	-
Nebr.	-	-	-	-	-	1	13	-	4	3	8	5	-	-	-
Kans.	3	-	1	-	-	13	14	-	2	-	4	6	-	4	-
S. ATLANTIC	93	3	117	-	11	437	262	2	624	11	84	140	-	14	7
Del.	4	-	3	-	-	21	2	-	4	2	3	-	-	-	-
Md.	27	-	9	-	7	170	27	1	61	-	16	32	-	5	1
D.C.	7	-	-	-	-	-	3	-	5	1	1	-	-	1	1
Va.	20	-	10	-	4	28	38	-	38	-	6	16	-	-	-
W. Va.	1	-	-	-	-	-	14	-	22	2	4	8	-	1	-
N.C.	8	-	25	-	-	39	59	-	126	-	13	21	-	-	2
S.C.	-	-	29	-	-	12	18	-	47	1	10	9	-	2	-
Ga.	3	-	-	-	-	14	38	-	56	-	8	24	-	-	-
Fla.	23	3	41	-	-	153	63	1	265	5	23	30	-	5	3
E.S. CENTRAL	12	2	446	-	18	2	91	1	41	1	19	43	-	1	100
Ky.	1	2	444	-	1	1	28	-	-	-	-	-	-	-	-
Tenn.	7	-	-	-	-	1	27	-	13	-	5	16	-	1	100
Ala.	4	-	-	-	-	-	27	1	8	1	13	23	-	-	-
Miss.	-	U	2	U	17	-	9	U	20	U	1	4	U	-	-
W.S. CENTRAL	17	149	515	-	-	158	103	1	289	1	36	35	-	-	5
Ark.	-	-	-	-	-	5	10	-	6	1	10	4	-	-	1
La.	1	-	-	-	-	-	24	1	16	-	2	9	-	-	-
Okla.	4	-	11	-	-	-	13	-	15	-	24	16	-	-	4
Tex.	12	149	504	-	-	153	56	-	252	-	-	6	-	-	-
MOUNTAIN	12	-	4	1	8	957	69	2	100	11	204	143	-	5	6
Mont.	-	-	-	-	-	-	12	-	2	-	1	2	-	-	-
Idaho	-	-	-	-	-	392	8	-	3	-	23	21	-	1	-
Wyo.	-	-	1	-	-	3	2	-	-	-	-	3	-	-	1
Colo.	5	-	3	-	7	5	12	-	14	1	25	73	-	-	1
N. Mex.	1	-	-	15	1	98	7	N	N	1	42	16	-	-	-
Ariz.	4	-	-	-	-	312	15	2	56	9	88	8	-	2	-
Utah	1	-	-	-	-	129	4	-	18	-	24	18	-	1	4
Nev.	1	U	-	U	-	18	9	U	7	U	1	2	U	1	-
PACIFIC	139	1	90	1	21	1,917	358	6	213	16	338	302	2	69	194
Wash.	7	-	-	-	10	61	52	-	9	6	98	72	-	6	8
Oreg.	10	-	4	-	1	62	47	N	N	4	20	40	-	2	2
Calif.	114	-	46	-	2	1,774	248	6	190	6	203	141	1	40	176
Alaska	1	-	8	-	1	1	6	-	1	-	3	12	-	-	1
Hawaii	7	1	32	1†	7	19	5	-	13	-	14	37	1	21	7
Guam	1	U	10	U	-	-	-	U	8	U	-	-	U	1	-
P.R.	-	-	293	-	-	89	3	-	1	-	8	31	-	-	1
V.I.	-	-	-	-	-	2	-	-	17	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	24	-	-	-	-	6	-	-	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	-	U	1	-	U	-	-

\*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International ‡Out-of-state



**TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 1, 1992, and August 3, 1991 (31st Week)**

Reporting Area	Syphilis (Primary & Secondary)		Toxic- shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	20,110	25,061	148	12,794	13,117	85	193	209	4,732
NEW ENGLAND	400	652	10	224	357	1	21	7	450
Maine	2	-	-	17	27	-	-	-	-
N.H.	35	12	6	3	5	-	1	-	1
Vt.	1	1	-	3	4	-	-	-	18
Mass.	190	307	3	98	179	1	12	4	5
R.I.	21	36	1	24	33	-	-	2	-
Conn.	151	296	-	79	109	-	8	1	426
MID. ATLANTIC	3,053	4,510	19	2,999	3,080	-	53	17	1,392
Upstate N.Y.	196	414	8	214	292	-	7	6	765
N.Y. City	1,665	2,227	-	1,885	1,875	-	23	3	-
N.J.	391	764	-	534	505	-	16	4	446
Pa.	801	1,105	11	366	408	-	7	4	181
E. N. CENTRAL	3,017	2,920	40	1,304	1,309	1	21	18	80
Ohio	468	400	12	197	193	-	3	11	8
Ind.	165	86	9	101	111	-	1	3	9
Ill.	1,391	1,341	5	663	681	1	15	-	12
Mich.	610	766	14	291	264	-	1	1	8
Wis.	383	327	-	52	60	-	1	3	43
W. N. CENTRAL	690	427	26	292	310	35	2	18	794
Minn.	47	45	5	72	59	-	1	-	120
Iowa	30	37	5	22	46	-	-	-	136
Mo.	530	299	5	137	131	27	1	16	8
N. Dak.	1	1	1	2	6	-	-	-	103
S. Dak.	-	1	-	15	24	6	-	1	95
Nebr.	1	9	3	13	11	1	-	-	8
Kans.	81	35	7	31	33	1	-	1	324
S. ATLANTIC	5,591	7,404	14	2,370	2,484	4	14	47	1,063
Del.	134	97	3	25	16	-	-	3	132
Md.	410	615	2	161	222	1	3	4	314
D.C.	249	469	-	78	117	-	1	1	11
Va.	429	549	1	169	218	2	-	2	182
W. Va.	10	19	1	53	42	-	1	3	24
N.C.	1,431	1,139	3	298	338	1	-	24	15
S.C.	752	923	1	242	239	-	1	5	91
Ga.	1,132	1,808	1	535	498	-	-	3	224
Fla.	1,044	1,785	2	809	794	-	8	2	70
E. S. CENTRAL	2,547	2,693	1	869	865	5	3	36	86
Ky.	89	53	-	236	207	1	-	5	48
Tenn.	688	913	1	236	230	4	-	28	-
Ala.	980	981	-	233	242	-	-	3	38
Miss.	790	746	-	164	186	-	3	-	-
W. S. CENTRAL	3,627	4,480	1	1,306	1,507	19	6	57	480
Ark.	493	386	-	106	131	11	-	8	25
La.	1,487	1,490	-	108	128	-	-	-	-
Okla.	177	111	-	95	104	8	-	49	231
Tex.	1,470	2,493	1	997	1,144	-	6	-	224
MOUNTAIN	234	349	12	339	358	18	2	5	101
Mont.	7	5	-	-	6	8	-	2	12
Idaho	1	3	1	14	4	-	1	1	-
Wyo.	1	4	-	-	3	2	-	-	23
Colo.	34	55	4	29	35	3	1	-	9
N. Mex.	27	21	2	47	45	5	-	1	5
Ariz.	117	225	2	156	195	-	-	-	49
Utah	6	5	3	52	30	-	-	1	1
Nev.	41	31	-	41	40	-	-	-	2
PACIFIC	951	1,626	25	3,091	2,847	2	71	4	286
Wash.	49	111	-	179	178	-	4	-	-
Oreg.	26	49	-	78	67	-	-	1	1
Calif.	867	1,458	24	2,658	2,435	1	64	3	273
Alaska	4	4	-	32	46	1	-	-	12
Hawaii	5	4	-	144	121	-	3	-	-
Guam	2	-	-	34	6	-	3	-	-
P.R.	191	287	-	135	126	-	1	-	31
V.I.	39	73	-	3	2	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	-	-	-
C.N.M.I.	4	2	-	38	8	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,\* week ending August 1, 1992 (31st Week)

Reporting Area	All Causes, By Age (Years)						P&I†	Total	Reporting Area	All Causes, By Age (Years)						P&I†	Total
	All Ages	≥65	45-64	25-44	1-24	<1				All Ages	≥65	45-64	25-44	1-24	<1		
NEW ENGLAND	588	410	103	41	21	13	48	S. ATLANTIC	1,135	679	246	145	30	33	55		
Boston, Mass.	172	113	33	14	7	5	15	Atlanta, Ga.	159	95	34	23	2	5	4		
Bridgeport, Conn.	U	U	U	U	U	U	U	Baltimore, Md.	194	110	50	24	6	4	8		
Cambridge, Mass.	27	23	4	-	-	-	5	Charlotte, N.C.	92	47	27	10	3	5	6		
Fall River, Mass.	27	23	3	-	1	-	2	Jacksonville, Fla.	127	77	33	11	5	1	5		
Hartford, Conn.	74	44	14	9	6	1	3	Miami, Fla.	113	59	27	21	6	-	-		
Lowell, Mass.	23	19	3	1	-	-	1	Norfolk, Va.	44	29	6	6	3	-	1		
Lynn, Mass.	11	9	1	1	-	-	1	Richmond, Va.	78	58	12	5	-	3	5		
New Bedford, Mass.	27	22	4	1	-	-	1	Savannah, Ga.	38	21	7	5	1	4	1		
New Haven, Conn.	35	22	3	6	2	2	3	St. Petersburg, Fla.	43	31	4	4	-	4	-		
Providence, R.I.	47	33	9	3	2	-	-	Tampa, Fla.	137	91	23	20	-	2	21		
Somerville, Mass.	2	1	1	-	-	-	-	Washington, D.C.	102	56	21	15	4	5	4		
Springfield, Mass.	47	31	10	2	2	2	5	Wilmington, Del.	8	5	2	1	-	-	-		
Waterbury, Conn.	35	26	6	3	-	-	-	E.S. CENTRAL	737	458	171	63	21	24	38		
Worcester, Mass.	61	44	12	1	1	3	10	Birmingham, Ala.	133	72	38	12	7	4	3		
MID. ATLANTIC	1,994	1,265	398	212	69	49	72	Chattanooga, Tenn.	64	42	15	5	1	1	1		
Albany, N.Y.	43	28	8	2	2	3	3	Knoxville, Tenn.	94	66	19	7	2	-	5		
Allentown, Pa.	17	10	6	1	-	-	-	Lexington, Ky.	64	39	14	5	3	3	1		
Buffalo, N.Y.	101	73	20	4	2	2	3	Memphis, Tenn.	180	120	33	15	4	8	20		
Camden, N.J.	38	21	7	3	4	3	1	Mobile, Ala.	42	23	10	5	2	2	-		
Elizabeth, N.J.	18	14	1	3	-	-	-	Montgomery, Ala.	47	32	10	4	-	1	1		
Erie, Pa.‡	38	27	7	2	-	2	1	Nashville, Tenn.	113	64	32	10	2	5	7		
Jersey City, N.J.	39	25	5	8	-	1	1	W.S. CENTRAL	1,316	831	251	152	50	32	84		
New York City, N.Y.	1,045	641	214	132	40	18	29	Austin, Tex.	64	38	13	10	-	3	1		
Newark, N.J.	46	21	9	10	2	4	3	Baton Rouge, La.	30	25	4	1	-	-	2		
Paterson, N.J.	21	13	2	4	-	2	-	Corpus Christi, Tex.	40	27	5	5	2	1	2		
Philadelphia, Pa.‡	225	133	54	22	7	8	11	Dallas, Tex.	186	110	42	25	4	5	5		
Pittsburgh, Pa.‡	77	41	20	6	5	5	5	El Paso, Tex.	70	47	11	7	5	-	3		
Reading, Pa.	16	12	2	1	1	-	3	Ft. Worth, Tex.	81	52	13	12	1	3	6		
Rochester, N.Y.	104	73	22	6	2	1	2	Houston, Tex.	272	143	57	49	15	8	30		
Schenectady, N.Y.	28	23	4	-	1	-	2	Little Rock, Ark.	62	41	11	5	3	2	3		
Scranton, Pa.‡	26	20	3	3	-	-	-	New Orleans, La.	114	79	21	9	3	2	-		
Syracuse, N.Y.	47	37	8	1	1	-	2	San Antonio, Tex.	207	135	37	20	10	5	16		
Trenton, N.J.	26	19	3	4	-	-	4	Shreveport, La.	88	66	16	2	2	2	8		
Utica, N.Y.	15	13	1	-	1	-	-	Tulsa, Okla.	102	68	21	7	5	1	9		
Yonkers, N.Y.	24	21	2	-	1	-	2	MOUNTAIN	650	416	113	77	16	28	48		
E.N. CENTRAL	2,029	1,211	412	238	117	51	89	Albuquerque, N.M.	81	52	12	15	2	-	2		
Akron, Ohio	43	27	11	4	1	-	-	Colo. Springs, Colo.	39	24	6	3	4	2	6		
Canton, Ohio	30	21	4	3	2	-	3	Denver, Colo.	111	62	22	15	3	9	12		
Chicago, Ill.	445	171	91	100	65	18	11	Las Vegas, Nev.	90	53	20	14	1	2	6		
Cincinnati, Ohio	107	68	27	9	1	2	7	Ogden, Utah	26	22	3	1	-	-	3		
Cleveland, Ohio	146	95	37	9	2	3	5	Phoenix, Ariz.	128	82	20	15	3	8	15		
Columbus, Ohio	159	95	38	16	10	-	8	Pueblo, Colo.	25	21	4	-	-	-	-		
Dayton, Ohio	107	77	20	8	1	1	4	Salt Lake City, Utah	65	42	11	5	3	4	-		
Detroit, Mich.	213	114	41	32	14	12	6	Tucson, Ariz.	85	58	15	9	-	3	4		
Evansville, Ind.	55	41	8	5	1	-	3	PACIFIC	1,997	1,254	402	234	66	33	123		
Fort Wayne, Ind.	58	46	8	2	1	1	5	Berkeley, Calif.	24	15	5	3	1	-	3		
Gary, Ind.	23	10	4	6	1	2	1	Fresno, Calif.	85	54	15	8	4	4	9		
Grand Rapids, Mich.	64	40	17	3	2	2	9	Glendale, Calif.	36	30	3	2	1	-	3		
Indianapolis, Ind.	160	111	27	16	2	4	7	Honolulu, Hawaii	73	48	16	7	1	1	8		
Madison, Wis.	34	19	11	3	-	1	2	Long Beach, Calif.	U	U	U	U	U	U	U		
Milwaukee, Wis.	122	88	25	4	5	-	8	Los Angeles, Calif.	681	414	137	91	29	5	26		
Peoria, Ill.	39	27	7	1	2	2	3	Pasadena, Calif.	36	20	8	4	2	2	3		
Rockford, Ill.	36	25	8	2	1	-	1	Portland, Ore.	130	90	20	11	5	4	2		
South Bend, Ind.	33	23	4	3	3	-	-	Sacramento, Calif.	160	92	50	12	2	2	20		
Toledo, Ohio	99	67	18	10	2	2	5	San Diego, Calif.	156	91	27	26	6	5	15		
Youngstown, Ohio	56	46	6	2	1	1	1	San Francisco, Calif.	144	79	35	28	1	1	4		
W.N. CENTRAL	692	499	105	53	18	17	38	San Jose, Calif.	175	118	30	18	6	3	15		
Des Moines, Iowa	55	38	7	7	2	1	2	Santa Cruz, Calif.	24	22	2	-	-	-	1		
Duluth, Minn.	16	12	2	-	1	1	1	Seattle, Wash.	152	100	27	16	6	3	2		
Kansas City, Kans.	25	18	3	4	-	-	1	Spokane, Wash.	46	32	11	1	1	1	9		
Kansas City, Mo.	103	79	16	7	-	1	6	Tacoma, Wash.	75	49	16	7	1	2	3		
Lincoln, Nebr.	25	18	3	3	1	-	3	TOTAL	11,138†	7,023	2,201	1,215	408	280	595		
Minneapolis, Minn.	170	121	27	10	8	4	13										
Omaha, Nebr.	62	50	9	3	-	-	4										
St. Louis, Mo.	128	78	21	14	6	9	2										
St. Paul, Minn.	58	49	6	2	-	1	4										
Wichita, Kans.	50	36	11	3	-	-	2										

\*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

‡Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§Total includes unknown ages.

U: Unavailable

*Surgical Sterilization – Continued*

Among women who had been sterilized, 78% reported never using a condom currently compared with 46% of nonsterilized women, while 3% of sterilized and 14% of nonsterilized women reported always using condoms (Table 2). This association persisted when the analysis included stratification by age group (odds ratio = 0.30; 95% confidence interval = 0.20–0.47) (Table 2).

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**Editorial Note:** Failure to use condoms during intercourse with partners at risk for STDs, including HIV infection, increases the risk for acquiring STDs. The findings in Baltimore are consistent with a previous study of surgical sterilization among women who were surveyed while enrolled in drug-treatment clinics in Philadelphia and underscore the need for educating women who have been surgically sterilized and others about the importance of condom use as a means for preventing STDs and HIV infection (2).

Surgical sterilization is more common among women who are older and who reside in low socioeconomic, inner-city, and minority communities (1). In these communities, women have been disproportionately affected by the HIV epidemic (3).

Women who plan surgical sterilization should be offered counseling before and after sterilization regarding their need for continued barrier protection; unless women, including those who have been sterilized, are involved in mutually monogamous relationships with uninfected partners who have no risk behaviors (e.g., injecting-drug use), condoms should be used during sexual intercourse. In addition, public health messages addressing the risks for HIV, STDs, cervical cancer, and other reproductive health concerns should include women who are surgically sterilized as well as those who are not.

The Baltimore City Health Department is using these findings to develop outreach strategies to increase condom use and to prevent HIV infection among all reproductive-aged women.

*References*

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*Epidemiologic Notes and Reports***Patient Exposures to HIV During Nuclear Medicine Procedures**

Although the potential for transmission of bloodborne pathogens to patients through transfusion of contaminated blood is well known, it is less widely recognized that such transmission can also occur during medical procedures involving withdrawal and reinjection of blood or blood products (e.g., nuclear medicine procedures). Since 1989, three patients (two in hospitals in the United States and one in the Netherlands) undergoing nuclear medicine procedures have been reported to have inadvertently received intravenous injections of blood or other material from patients

*HIV Exposure – Continued*

infected with human immunodeficiency virus (HIV). Two of these patients are known to have become infected with HIV during these procedures; HIV test results are not available for the third patient. This report summarizes these three incidents and provides recommendations for preventive measures.\*

In the first incident, a patient was inadvertently injected intravenously with an estimated 100–200  $\mu$ L of fresh whole blood from an HIV-infected patient after a used syringe containing the blood was mistaken for another syringe containing red blood cells that had been treated (i.e., labeled) with a radioactive isotope (1). The second incident involved the inadvertent injection of a patient with white blood cells from an HIV-infected patient; the cells had been labeled with a radioactive isotope and were injected in the wrong patient when hospital personnel failed to correctly match the identification number of the recipient with that of the specimen of white blood cells (2,3). In both incidents, the recipient patient developed HIV infection despite prompt administration of zidovudine postexposure.

The third incident involved the inadvertent reuse of a syringe that had been used during a diagnostic procedure on an HIV-infected patient, resulting in injection of residual material into a second patient. Follow-up HIV test results from the recipient patient are not available (3).

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**Editorial Note:** Nuclear medicine procedures most often involve the intravenous injection, inhalation, or oral ingestion of radioactive materials (i.e., radiopharmaceuticals or radiotracers) for diagnostic or therapeutic purposes. In the United States, approximately 7–10 million such procedures are performed annually in radiology, nuclear medicine, and cardiology departments and clinics. A small subset of these procedures involves withdrawing and then reinjecting a patient's blood after certain cells or elements (i.e., red blood cells, white blood cells, or platelets) are labeled with a radioactive isotope. The two errors in administration known to have led to HIV infection in patients described in this report involved these procedures.

All three instances of errors in administration of radiotracers to patients undergoing nuclear medicine procedures were preventable because they resulted from errors in the identification of the patient and/or materials to be injected. Two of the incidents also involved improper handling and disposal of used syringes.

Administration errors in nuclear medicine procedures are relatively rare. During 1981–1990, an estimated 38 million nuclear medicine procedures were performed in the 21 states where nuclear medicine is regulated by the U.S. Nuclear Regulatory Commission (NRC); the facilities in these states represent approximately 40% of those performing nuclear medicine procedures in the United States. During this period, 4164 errors (defined by the NRC as misadministrations [4]) were reported to the NRC (4), representing an overall error rate of approximately 1 per 10,000 diagnostic procedures performed. Most of these reported misadministrations involved an incorrect dosage or radiopharmaceutical and/or errors in patient identification.

\*Single copies of this report will be available free until August 7, 1993, from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003.

*HIV Exposure – Continued*

Institutions or clinics in which nuclear medicine procedures are performed should assess policies and procedures to assure routine adherence to the following recommendations:

- All health-care providers, including those who perform nuclear medicine procedures, should receive proper training and routine in-service education on proper infection-control procedures (5).
- Written infection-control policies and procedures specific for nuclear medicine should be promulgated, made accessible, and disseminated in departments where nuclear medicine procedures are performed. These policies should outline procedures to follow in the event of a potential emergency (e.g., an administration error).
- All doses and syringes should be examined for identification and radioassayed (i.e., radiation level checked) before injection (6).
- All syringes should be labeled with appropriate identifying information, including the patient's name and the pharmaceutical (6); a unique identification number should also be used.
- Consideration should be given to implementing a system to be used when administering biologic products (e.g., labeled cells) that is similar to the system used for administering blood. Such a system requires that two persons be present to cross-check all labeling of product to be injected, the prescription, and patient identification.
- Contaminated and used syringes should be disposed of safely and appropriately. Disposal containers for syringes should be located as close as practical to the location of syringe use (6,7).
- All procedures should be documented; documentation should include, at a minimum, the date, name and amount of radiopharmaceutical, and route of administration (6). Ideally, the name or identifying information of the person administering the dose and the exact time of administration should be recorded either in the patient or departmental record.
- An administration error (e.g., administration involving the wrong patient or radiopharmaceutical) should be immediately reported to supervisory personnel and/or the physician in charge. Recommendations for the management of persons after a blood exposure in a health-care setting should be followed (7–9). All administration errors and narrowly avoided errors in administration should be carefully evaluated to determine whether additional precautions are necessary to prevent similar potential administration errors.

Careful adherence to these recommendations should minimize the risk of patient or health-care worker exposure to bloodborne pathogens during nuclear medicine procedures.

Misadministrations, as defined by the NRC or by the equivalent state agency in states that have an agreement with the NRC to carry out similar functions, should be reported to the appropriate agency as required by law. In addition, to develop and evaluate additional measures for preventing bloodborne pathogen transmission in nuclear medicine departments and other health-care settings, CDC requests that incidents involving possible transmission of bloodborne pathogens to patients in a health-care setting be reported through local and state health departments to CDC's

*HIV Exposure – Continued*

HIV Infections Branch, Hospital Infections Program, (telephone [404] 639-1547) or Hepatitis Branch, Division of Viral and Rickettsial Diseases (telephone [404] 639-3048).

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### **Update: CD4+ T-Lymphocytopenia in Persons Without Evident HIV Infection – United States**

On July 31, 1992, CDC reported five cases of CD4+ T-lymphocytopenia in persons without evident human immunodeficiency virus (HIV) infection in the United States (1). As of August 5, 1992, CDC has received reports of nine additional persons with similar clinical presentations. All persons who have been reported to CDC meet the three criteria for CD4+ T-lymphocytopenia without evident HIV infection.\* Another 21 persons suspected to have this condition have been described (1), 10 of whom reside in the United States. This report summarizes the 14 cases reported to CDC and provides information on the national surveillance system established to determine the prevalence and distribution of this condition.†

The 14 persons reported to CDC resided in 10 states, and their CD4+ T-lymphocytopenia was first documented during 1985-1992. These persons ranged in age from 31 to 70 years (median: 48 years); eight (57%) were male. Twelve persons (86%) were white, one (7%) black, and one (7%) Asian.

Information about risk factors for HIV infection was available for 13 persons, of whom four (31%) had established risk factors: three persons had received blood transfusions, and one person reported male homosexual contact. Acquired immunodeficiency syndrome (AIDS)-defining illnesses were diagnosed in eight (57%) of the 14 persons (2); six had other illnesses. One person died from an AIDS-defining illness; the other 13 are alive.

\*Low CD4+ T-cell levels (documented absolute CD4+ T-cell level <300 cells/ $\mu$ L OR <20% on more than one determination); negative laboratory evidence of HIV infection (includes HIV serology and, if performed, HIV p24 antigen, polymerase chain reaction, and viral culture); and no defined immunodeficiency or therapy associated with depressed CD4+ T-cell levels.

†Single copies of this report will be available free until August 7, 1993, from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003.

*CD4+ T-Lymphocytopenia – Continued*

The lowest recorded CD4+ T-cell levels were 17–200 cells/ $\mu$ L (median: 85 cells/ $\mu$ L). In addition to testing for antibody to HIV, supplemental tests for HIV infection were performed for seven of the 14 persons and were negative. These supplemental tests included polymerase chain reaction for HIV DNA sequences (five persons), coculture of peripheral blood monocytes (three), and HIV p24 antigen assay (six).

The 10 U.S. cases previously described (3–5) are under investigation. A summary of information obtained to date indicates that eight of the 10 persons were male. Risk factors for HIV infection included male homosexual contact (six) and receipt of blood transfusions (one); three had no reported risk factors. Three persons had AIDS-defining illnesses, three had other illnesses, and four were asymptomatic. Of nine persons for whom vital status was known, two died from AIDS-defining illnesses. All 10 persons had at least one supplemental test for HIV infection; all of these tests were negative. All six persons with documented CD4+ T-cell levels had  $<300$  cells/ $\mu$ L.

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**Editorial Note:** HIV-negative persons with apparent CD4+ T-lymphocytopenia are under epidemiologic and laboratory investigation by CDC and the National Institutes of Health. The cause of this condition remains unknown; these cases may represent a heterogeneous group of disorders.

In collaboration with state and local health departments, CDC has developed a standardized national surveillance system for collecting and reporting information on HIV seronegative persons with CD4+ T-lymphocyte depletion. Health-care providers are requested to report such cases to CDC through the AIDS surveillance section of their local or state health departments. Additional information on case reporting is available from CDC (telephone [404] 639-2981). Investigators in charge of Public Health Service-sponsored clinical trials and epidemiologic cohort studies, members of the Infectious Disease Society of America, the National Hemophilia Foundation, laboratories participating in CDC's Model Performance Evaluation Program, and physicians/institutions who report persons with HIV infection/AIDS are being contacted directly to facilitate reporting of cases to this surveillance system.

A scientific meeting will be held on August 14, 1992, at CDC to review the findings from these investigations. Additional information about the meeting and registration is available from PACE Enterprises; telephone (404) 633-8610.

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