

SOCIETY OF NEPHROLOGY, DIALYSIS AND TRANSPLANTATION OF THE BOSNIA AND HERZEGOVINA



THE RENAL REGISTRY OF BOSNIA AND HERZEGOVINA (ERA-EDTA Registry)

The Annual Report 2002

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The data reported here have been supplied by the Renal Registry Commission of the Society of Nephrology, Dialysis and Transplantation of the Bosnia and Herzegovina. The interpretation and reporting of these data are the responsibility of the authors.

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A INTRODUCTION

This Annual Report describes activities of the Society of nephrology, dialysis and transplantation of Bosnia and Herzegovina and Commission for Renal Registry of Bosnia and Herzegovina.

In 2002 it had been total 1531 patients (853 men plus 678 women). The 691 patients in life age from 45 to 64 years (Table B.1.1).

The data for Renal Registry are collected 23 dialysis centres, by questionnaires for individual patients and by questionnaires for centres.

Epidemiological study of patients' numbers those they are in the terminal stage of kidney insufficiency and those they are under treatment by different methods was expressed by incidence and prevalence rate.

The new patients' number in 2002 had been 420, just as is showing in Table B.2.1. 22,14% had been older then 65 years, and the most frequently population had been form 45 toe 64 years, in percent that is 44,76%.

The average age of new patients is 53,405 years, percent of the men is 55% men (Table 3). Incidence rate (PMP) had been 113,51 (Table B.2.3).

The most often reason of the new patients kidney insufficiency had been Pyelonephritis (17,29%), but diabetes mellitus was existed on 12,16% patients, for difference from another Europe countries and America, where diabetes mellitus had been like as shown in Table B.2.4.

The demographic specifications have given in tables the B.3.1 for the new patients, in Tables B.3.2 and B.3.3 after dialysis during three months main reasons were HBI, see Table B.3.4.

Modalities of the kidney insufficiency compensations have given with HBI in the tables B.3.5, the B.3.6 and the B.3.7. It is clearly that is AD the most used treatment methods to the new patients the (79,91%), and by the CAPD were treated 4,42% of the patients.

The table B.4.1 presents the prevalence rate (PMP) of the patients which are on dialysis program, and it is the 413 prevalent patients.

Life age structures of the patients which are on dialysis is similar like life age structure of the new patients, bur it is life age structure of our population was the 54 years (Table B.4.2).

The primary reason is Glomerulonephritis with the 25,28% of the chronically kidney insufficiency of our patients, bur diabetes mellitus existed to the 8,62% cases, (Table B.4.4).

Just as had shown in the Table B.4.5, on Haemodialysis treatment had been in total the 1338 patients, but on Peritoneal dialysis had been the 44 of patients with total PMP = 413 (see Table B.4.7 (87,4% of the patients are upon HD treatment)).

The total number of the transplant ants, which contents patients which had been grafted during earlier years, is the 149, Table B.4.8.

B CENTRES COLLECTING INDIVIDUAL PATIENT DATA, INFORMATION VIA CENTRE QUESTIONNAIRES OR HEALTH AUTHORITIES

B.1 AFFILIATED REGISTRY INFORMATION FOR 2002

Table B.1.1 General Population¹ of the country/region by age group and gender, and per cent coverage of the general population²

Country	General population in Thousands							% coverage of general population
Age group		ALL	0-19	20-44	45-64	65-74	75+	
Bosnia and Herzegovina	Men	1868269	491278	732751	449921	152464	41855	48,8
	Women	1960126	467246	728208	493142	193682	77848	51,2
	All	3828395	958524	1460959	943063	346146	119703	100

¹ Mid year population as provided by the national statistics agency

² % of the general population covered by the renal centres collaborating with the registry

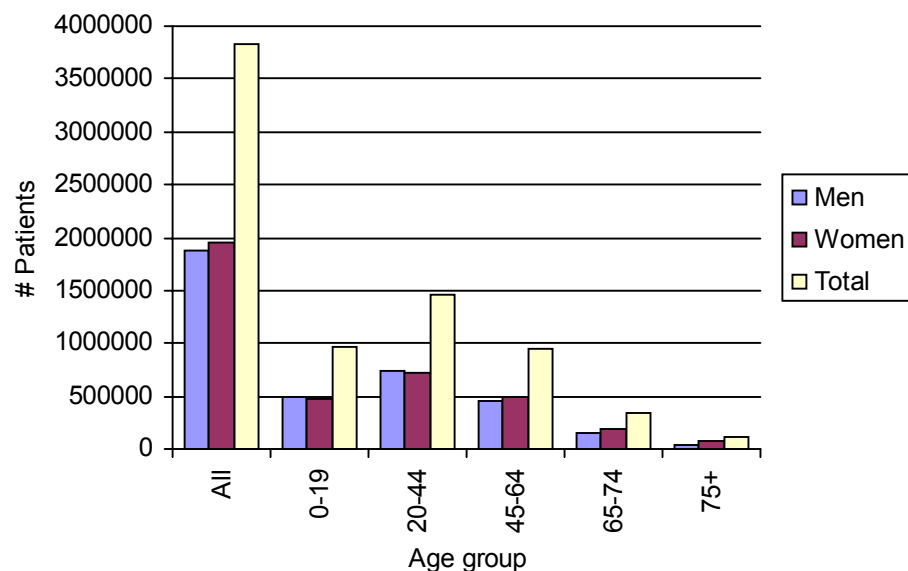


Table B.1.2 Renal centres¹: total number of centres and number collaborating

Country	Total number of renal centres	Number of renal centres collaborating with the registry
Bosnia and Herzegovina	24	23

¹ The number of renal centres is based on having a separate centre code

B.2 INCIDENT PATIENTS ACCEPTED FOR RRT IN 2002 (RESIDENTS ONLY) AT DAY 1**Table B.2.1. Incident counts and incident rates per million population (at day 1, unadjusted)***

Country		N	Pmp
Bosnia and Herzegovina	Men	1868269	123,64
	Women	1960126	96,42
	All	3828395	109,70

* Percentages are row percentages

Table B.2.2 Gender, mean and median age of incident patients (at day 1)

Country		Gender	Age		
		%	Mean (Years)	(SD)	Median (Years)
Bosnia and Herzegovina	Men	231	52,709	13,628	53,046
	Women	189	54,251	14,014	55,477
	All	420	53,405	13,826	54,500

Table B.2.3 Incident rates per million population (at day 1, adjusted for age and gender)*

Country		ALL
		PMP
Bosnia and Herzegovina	Men	123,64
	Women	96,42
	All	109,70

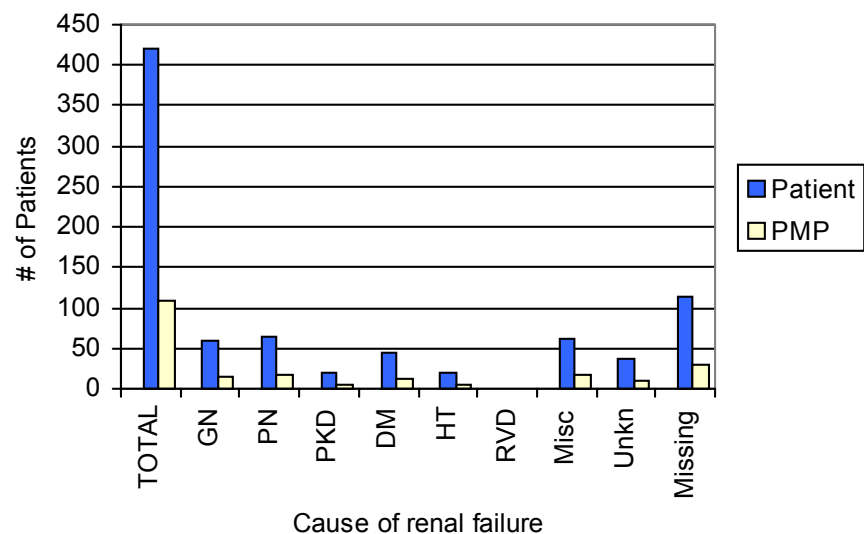
* adjustment to European population of 1995 (see Methods section: ¹ adjusted for age ² adjusted for age gender)

Table B.2.4 Incident rates per million population and percentage, by cause of renal failure*, (at day 1, unadjusted)

Country																				
Cause ofRenal failure	TOTAL		GN		PN		PKD		DM		HT		RVD		Misc		Unkn		Missing	
	420		59		64		19		45		21		-		62		37		113	
	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PM T	%	PMP	%	PMP	%
Bosnia and Herzegovina	109,7	100	15,41	14,04	16,71	15,24	5,13	4,96	11,75	10,71	5,67	5,00	-	-	16,19	14,76	10,00	8,80	29,51	26,90

Abbreviations used: GN: Glomerulonephritis/sclerosis; PN: Pyelonephritis; PKD: Polycystic kidneys, adult type; DM: Diabetes mellitus; HT: Hypertension; RVD: Renal vascular disease; Misc: Miscellaneous; Unkn: Unknown.

* Grouping renal disease see Methods section



B.3 INCIDENT PATIENTS ACCEPTED FOR RRT IN 2002 (RESIDENTS ONLY) AT DAY 90

Table B.3.1 Incident counts and incident rates per million population (at day 90, unadjusted)

Country		ALL	
		N	Pmp
Bosnia and Herzegovina	Men	1868269	123,64
	Women	1960126	96,42
	All	3828395	109,70

Table B.3.2 Gender, mean and median age of incident patients (at day 90)

Country	Gender	Mean age (SD)	Median age
		% (N)	Years
Bosnia and Herzegovina	Men	55 (231)	52,709
	Women	45 (189)	54,251
	All	100 (420)	53,405

Table B.3.3 Incident rates per million population (at day 90, adjusted) for and gender)*

Country		PMP
Bosnia and Herzegovina	Men ¹	123,64
	Women ¹	96,42
	All ²	109,70

* Adjustment to European population of 1995 (see Methods section): ¹adjusted for age; ²adjusted for age and gender

Table B.3.4 Incident rates per million population and percentage, by cause of renal failure* (at day 90, unadjusted)

Country																				
Cause of Renal failure	TOTAL		GN		PN		PKD		DM		HT		RVD		Misc		Unkn		Missing	
	420		59		64		19		45		21		-		62		37		113	
	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%
Bosnia and Herzegovina	109,7	100	15,41	14,04	16,71	15,24	5,13	4,96	11,75	10,71	5,48	5,00	-	-	16,19	14,76	9,66	8,80	29,51	26,90

Abbreviations used: GN: Glomerulonephritis/sclerosis; PN: Pyelonephritis; PKD: Polycystic kidneys, adult type; DM: Diabetes mellitus; HT: Hypertension; RVD: Renal vascular disease; Misc: Miscellaneous; Unkn: Unknown.

* Grouping renal disease see Methods section

Table B.3.5 Incident counts, by established therapy (at day 90)

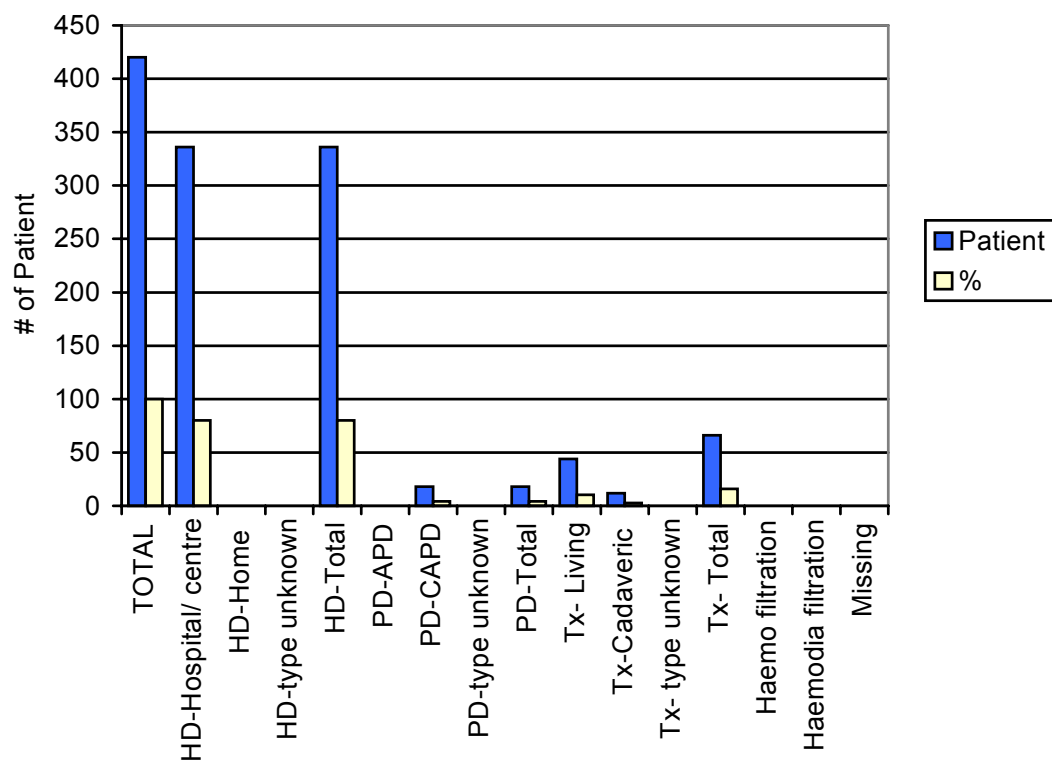
Country	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP
Bosnia and Herzegovina	109,70	87,76	0	0	87,76	0	5,95	0	4,70	33,17	5,75	0	38,92			0

Table B.3.6 Incident rates per million population, by established therapy (at day 90, unadjusted)

Country	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP
Bosnia and Herzegovina	109,70	87,76	0	0	87,76	0	5,95	0	4,70	33,17	5,75	0	38,92			0

Table B.3.7 Percentage of established therapy (at day 90, unadjusted)

Country	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Bosnia and Herzegovina	420	336	0	0	336	0	18	0	18	44	22	0	66			0
	100	80,00	0	0	80,00	0	4,28	0	4,28	10,48	5,23	0	15,72			0



B.4 PREVALENT PATIENTS ON RRT IN 2002 (RESIDENTS ONLY)

Table B.4.1 Prevalent counts and per million population (patients alive on December 31, unadjusted)

Country		N	PMP
Bosnia and Herzegovina	Men	853	456,57
	Women	678	345,89
	All	1531	399,90

Table B.4.2 Gender, mean and median age of prevalent patients (alive on December 31)

Country		Gender	Mean age (SD)	Median age
		%	Years	Years
Bosnia and Herzegovina	Men	55,71	53,3207	54,0000
	Women	44,29	54,7588	56,0000
	All	100	53,9865	55,0000

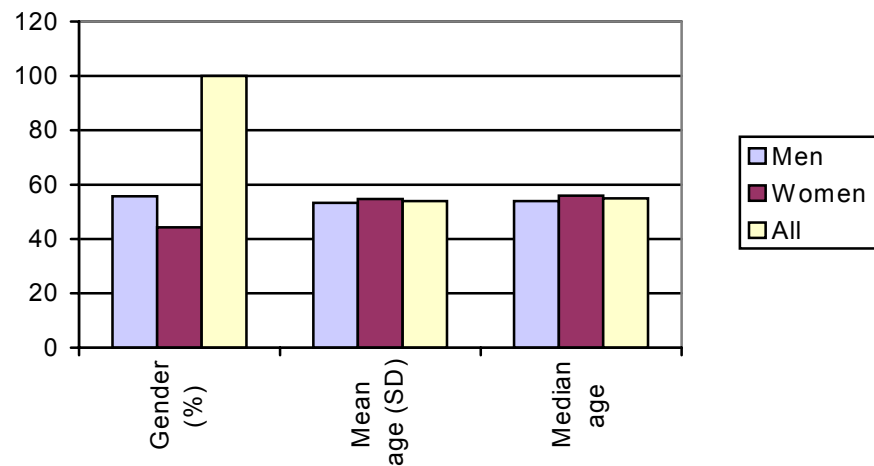


Table B.4.3 Prevalence per million population (patients alive on December 31, adjusted for age and gender)*

Country		PMP
Bosnia and Herzegovina	Men ¹	230,54
	Women ¹	183,24
	All ²	413,78

* adjustment to European population of 1995 (see Methods section): 1 adjusted for age: 2 adjusted for age and gender

Table B.4.4 Prevalence per million population and percentage, by cause of renal failure¹ (patients alive on December 31. (unadjusted)

Country																								
	TOTAL (1531)		GN (387)		PN (302)		PKD (103)		DM (132)			HT (86)		RVD (0)		Misc (303)		Unkn (188)		Missing (30)				
	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%	PMP	%		
Bosnia and Herzegovina	399,90	100	101,08	25,28	78,88	19,72	26,90	6,73	-	-	-	-	34,48	8,62	22,46	5,62	-	-	79,14	19,79	49,10	12,28	7,84	1,96

Abbreviations used: GN: Glomerulonephritis/sclerosis; PN: Pyelonephritis; PKD: Polycystic kidneys, adult type; DM: Diabetes mellitus; HT: Hypertension; RVD: Renal vascular disease; Misc: Miscellaneous; Unkn: Unknown.

¹ Grouping renal disease see Methods section

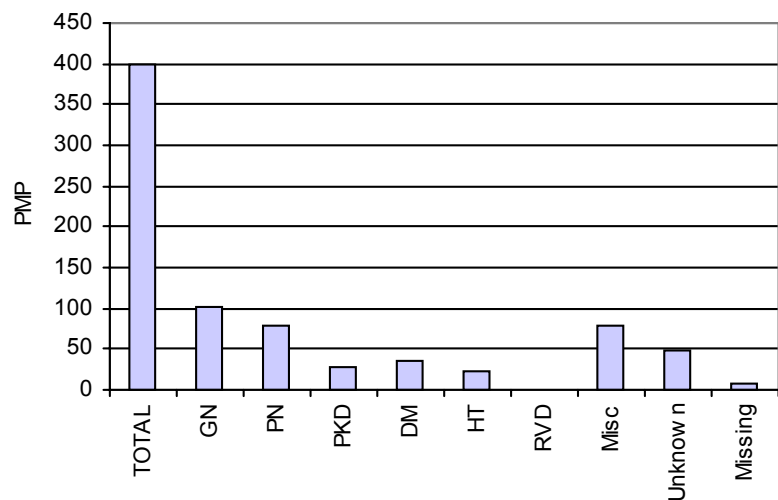


Table B.4.5 Prevalence counts, by established therapy (patients alive on December 31)

Country	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Bosnia and Herzegovina	1531	1338	0	0	1338	0	44	0	44	127	22	0	149	0	0	0

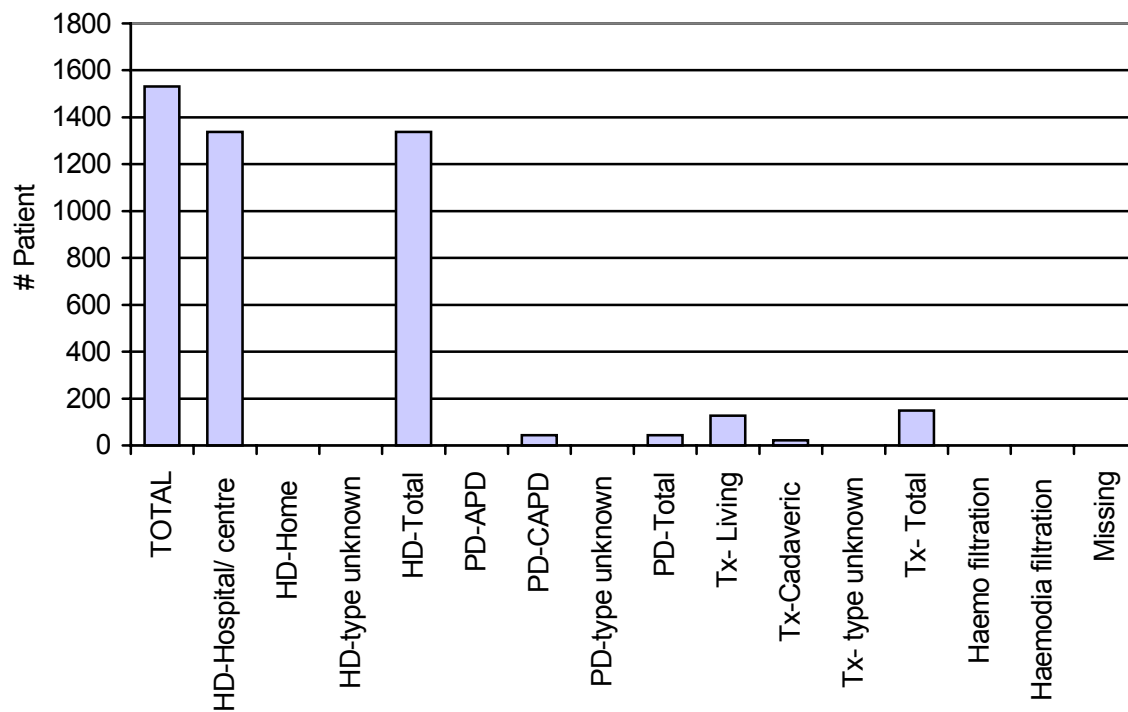


Table B.4.6 Prevalence per million population, by established therapy (patients alive on December 31, unadjusted)

Country																
	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP
Bosnia and Herzegovina	399,90	349,49	0	0	349,49	0	11,49	0	11,49	33,17	5,75	0	38,92	0	0	0

Table B.4.7 Percentage of established therapy (patients alive on December 31, unadjusted)

Country																
	TOTAL	Haemodialysis				Peritoneal dialysis				Transplantant				Haemo filtration	Haemodia filtration	Missing
		Hospital/centre	Home	HD, type unknown	Total HD	APD	CAPD	PD, type unknown	Total PD	Living	Cadaveric	Tx, type unknown	Total Tx			
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
Bosnia and Herzegovina	100	87,40	0	0	87,40	0	2,87	0	2,87	8,29	1,44	0	9,73	0	0	0

Table B.4.8 Renal transplants, number and percentage by donor type

Country														
	TO TAL		Living						Cadaveric		Donor type unknown			
	N	%	Related		Unrelated		Living, type unknown		Living. All		N	%	N	%
		N	%	N	%	N	%	N	%	N	%	N	%	
Bosnia and Herzegovina	149	100	96	64,43	27	18,12	4	2,68	127	85,23	22	14,77	0	0

SECTION C METHODS**GROUPING OF RENAL DISEASES**

Primary Renal Disease (PRD)	1994 code	1995 code	PRD Group
Glomerulonephritis; histologically NOT examined	10	10	I
Focal segmental glomerulosclerosis with nephrotic syndrome in children	11	11	I
IgA nephropathy (proven by immunofluorescence, not code 76 and not 85)	12	12	I
Dense deposit disease; membrano-proliferative GN; type II (proven by immunofluorescence and/or electron microscopy)	13	13	I
Membranous nephropathy	14	14	I
Membrano-proliferative GN; type I (proven by immunofluorescence and/or electron microscopy - not code 84 or 89)	15	15	I
Crescentic (extracapillary) Glomerulonephritis (type I, II, III)	16	16	I
Focal segmental glomerulosclerosis with nephrotic syndrome in adults	17	17	I
Glomerulonephritis; histologically examined, not given above	19	19	I
Pyelonephritis - cause not specified	20	20	II
Pyelonephritis associated with neurogenic bladder	21	21	II
Pyelonephritis due to congenital obstructive uropathy with/without vesico-ureteric reflux	22	22	II
Pyelonephritis due to acquired obstructive uropathy	23	23	II
Pyelonephritis due to vesico-ureteric reflux without obstruction	24	24	II
Pyelonephritis due to urolithiasis	25	25	II
Pyelonephritis due to other cause	29	29	II
Interstitial nephritis (not pyelonephritis) due to other cause, or unspecified (not mentioned above)	30	30	VII
Nephropathy (interstitial) due to analgesic drugs	31	31	VII
Nephropathy (interstitial) due to cis-platinum	32	32	VII
Nephropathy (interstitial) due to cyclosporin A	33	33	VII
Lead induced nephropathy (interstitial)		34	VII
Drug induced nephropathy (interstitial) not mentioned above	39	39	VII
Cystic kidney disease - type unspecified	40	40	VII
Polycystic kidneys; adult type (dominant)	41	41	III
Polycystic kidneys; infantile (recessive)	42	42	VII
Medullary cystic disease; including nephronophthisis	43	43	VII
Cystic kidney disease - other specified type	49	49	VII
Hereditary/Familial nephropathy - type unspecified	50	50	VII
Hereditary nephritis with nerve deafness (Alport's Syndrome)	51	51	VII
Cystinosis	52	52	VII
Primary oxalosis	53	53	VII
Fabry's disease	54	54	VII
Hereditary nephropathy - other specified type	59	59	VII
Renal hypoplasia (congenital) - type unspecified	60	60	VII
Oligomeganephronic hypoplasia	61	61	VII
Congenital renal dysplasia with or without urinary tract malformation	63	63	VII
Syndrome of agenesis of abdominal muscles (Prune Belly)	66	66	VII
Renal vascular disease - type unspecified	70	70	V
Renal vascular disease due to malignant hypertension	71	71	IV
Renal vascular disease due to hypertension	72	72	IV
Renal vascular disease due to polyarteritis	73	73	VII
Wegener's granulomatosis	74	74	VII
Glomerulonephritis related to liver cirrhosis	76	76	VII

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Cryoglobulinaemic glomerulonephritis		78	VII
Renal vascular disease - due to other cause (not given above and not code 84-88)	79	79	V
Diabetes glomerulosclerosis or diabetic nephropathy - Type I	80	80	VI
Diabetes glomerulosclerosis or diabetic nephropathy - Type II	81	80	VI
Myelomatosis/light chain deposit disease	82	82	VII
Amyloid	83	83	VII
Lupus erythematosus	84	84	VII
Henoch-Schoenlein purpura	85	85	VII
Goodpasture's Syndrome	86	86	VII
Systemic sclerosis (scleroderma)	87	87	VII
Haemolytic Uraemic Syndrome (including Moschcowitz Syndrome)	88	88	VII
Multi-system disease - other (not mentioned above)	89	89	VII
Tubular necrosis (irreversible) or cortical necrosis (different from 88)	90	90	VII
Tuberculosis	91	91	VII
Gout	92	92	VII
Nephrocalcinosis and hypercalcaemic nephropathy	93	93	VII
Balkan nephropathy	94	94	VII
Kidney tumour	95	95	VII
Traumatic or surgical loss of kidney	96	96	VII
Other identified renal disorders	99	99	VII
Chronic renal failure; aetiology uncertain	00	00	VIII

I. Glomerulonephritis/sclerosis;

II. Pyelonephritis;

III. Polycystic kidneys, adult type;

IV. Hypertension;

V. Renal vascular disease;

VI. Diabetes mellitus;

VII. Miscellaneous;

VIII. Unknown.