

05-carbamazepine (CAS# 298-46-4)															
Table 1a. Sub-lethal acute poisoning (single dose): Clinical observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to recovery): h
1	BGPC 1988: 03924	1	46	NR	9.8		4	(a)	25	106			MS		E36
2	SPC 1986:1	2	Ad	S	15	ED	2		33.6	142			0h: NS; 7h: C, RA;	0h: ST, RC	NR
		2					14		28.1	119			12h: RM	7h: AR; 12h: HD+HP 4h	
		2				ET	18		16.1	68					
3	SPC 1987:1	3	Ad	S	NR		8		59.6	252			0h: DC; 20h: RM	0h: ST, AR	E48
		3					16		50.1	212					
		3					17		40.2	170					
		3					18		39.7	168					
		3					19		35.9	152					
		3					20		30.0	127					
		3					32		19.2	81					
4	SPC 1990:3	4	22M	S	19		1.5		31.2	132			0h: MS; 4.5h: SZ, RA	0h: ST	24
		4				ET	6	p	40.2	170			18h: RM	4.5h: AC	
		4				ET	20		19.4	82					
5	SPC 1990:4	5	19F	S	NR	(b), (c), (d), ET	2		48.9	207			ba: V; 0h: C; 36h: RM	0h: ST, RC	72
		5				(i), ET	72		2.6	11					
6	Gruska 1971	6	42F	S,Z	20		18		17.0	72			0h: MS; 6h: C(l), P	0h: ST; 6h: AR	408
		6					64	p	22.5	95			6d: RM/C	FD 102h	
		6					136		9.0	38				4.5d: PD 22h	
7	Salcman 1975	7	16M	S,Z	5.8		36		10.1	43			C 3d	ST	72
8	de Zeeuw 1979	8	23F	S,Z	16	(b), ET	34		29	123	47.6	188.5	0h: MS (l)	0h: ST	100
		8				ET	46		29	123	55.5	219.8	10h: RM (l)	45h: AR	
		8				ET	65	p	44	186	67.4	266.9	45h: DC		
		8				ET	76		37	157	67.4	266.9	84h: RM/C		
		8				ET	106		13	55	19.8	78.4			
9	Homan 1980	9	23M	S,A	18	(q), ET	5		60	254			0h: C, 75h: R/C		NR
		9					80		5.5	23					
10	Gary 1981	10	48F	S,A	NR	(e), (f)	2.5		18.2	77			0h: MS; 1h: C, H; 5h: LP	0h: ST; 1h: AR	288
		10					16.5	p	39.6	168			72h: RM	14h: HP 4h	
		10					20.5		27.2	115					
		10					24.5		27.2	115					
		10					88		10	42					
11	Chan 1981	11	55F	S,Z	NR	(p)	26.5		60	254			ba(-2h): C; 0h: C 15min	0h: ST	72/240
		11					28.5		36	152			RA, MA(7.28/-)	15 min: AR	
		11					49.5		18.2	77			RM: 3d	16h: HP 2h	
		11					109.5		7	30					
12	Sullivan 1981	12	27M	S	NR	(d), (n)	4		30	127	9.9	39.2	0h: MS, N	0h: ST	NR
		12					10	p	38.4	163	23.8	94.2	1h: C, H		
		12					31		25	106	43.6	172.6			
		12					93		11	47	7.9	31.3			
12		13	17M	S,Z	NR	(o)	2		11.7	50			0h: MS, N	0h: ST	NR
		13					15	p	35	148			4h: C, H, MA	4h: AR	
		13					53		8	34			34h: RM		
13	Hruby 1982	14	16F	Z	NR		20		34	144			NR	NR	E144
		14					44		12.6	53					
		14					144		3.2	14					

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14	Myreng 1982	15	31M	U,A,X	40		12		85.1	360			0h: C, H, SZ; 52h: RM	0h: ST, AR,	96
		15				(d), (g)	60		21.2	90.0				FD, UL 2days	
		15					84		12.5	53.0				AC	
		15					108		7.6	32.0					
		15					132		2.1	9.0					
		15					156		0.5	2.0					
15	Leslie 1983	16	50M	S,X	20		12		62.0	261			0h: DC, H, K;	0h: ST, AR 6h	96
		16					52		31.0	131			l: LP, CF, KF, HA	40h: HP 5h	
		16					57		15.0	63.0			45h: RM		
16	Nilsson 1984	17	34M	S	80	(m), ET	4		47.3	200			0h: MS; 0.5h: C, LP, H	0h: ST;	124
		17				ET	16		37.8	160			84h: RM	0.5h: AR	
		17				ET	112		16.5	70.0				12h: HP 3.5h	
		17												l: HPx2	
17	Tartara 1986	18	18F	S,X	6	(b), ET	20		24.0	102			0h: MS, LP; 7h: C, SZ		336
		18				ET	46		10.0	42			46h: RM, LP(h)		
		18				ET	70		0.01	0.1			70h: RM		
18	Mall 1987	19	53M	S,Z	4		14		23.8	101			0h: C; l: H	0h: ST, FD	NR
		19					38		17.5	74			48h: RM		
		19					86		2.70	11					
19	Bursztyn 1987	20	19M	S,Z	16		24		31.0	131			0h: C; l: H; 36h: RM/C, N	0h: ST	NR
20	Weaver 1988	21	19F	S,Z	13.2	(b)	1.5		35.0	148			0h: SZ, C; 18h: RM, PS	0h: ST, AC	96
		21											40h: RM, N; 45h: C;		
		21											55h: RM		
20		22	16F	S,Z	20	(b)	14		31.0	133	70.0	277	0h: C; 22h: RM	0h: ST	54
		22					58	p	40.0	169	33.0	131			
20		23	26F	S,A	20		1		27.0	113	5.0	20	0h: C; 11h: RM, PS	0h: ST, RC	48
		23					18		17.5	74.0	23.0	91	17h-22h:N		
		23					12		2.84	12.0	3.2	13			
21	Bock 1989	24	45F	S,A	4-36		20		60.0	254			0h: MS, N; 14h: C	0h: ST, FD	48
		24					36		30.0	127			l: H, LP	14h: AR	
		24					40		14.6	62			48h: RM	18h: HD/HP	
		24					42		15.4	65				4h	
		24					50		9.40	40					
22	Sethna 1989	25	36F	S,Z	NR	(b), (i), ET	18		36.0	152	100	396	ba(-5h): MS;	0h: ST, AR	E120
		25				ET	45		27.6	117	63.4	251	0h: C, LP, N(j)	90h: (k)	
		25				ET	75	p	55.0	233			l: HA,(j), DC; 98h: RM		
		25				ET	114		13.6	58					
23	Höjer 1993	26	37M	NR	NR	(b)	1		52.0	220			0h: C, SZ; 9h: RM;	0h: ST, AR I	NR
		26					6		52.0	220			15h: DC	15h: AT II	
		26					12		38.8	164					
		26					33		22.4	95.0					
24	Spiller 1998	27	19M	S	NR	ET	2		37.4	158.3			2h: SZ	2h: RC, AC	NR
		27				ET	14		44	186.2			14h: SZ, IP	14h: AC	
		27												17h: AC	
25	Low 1996	28	36M	S	NR		3		42.8	181.1			24h: R	ST, HP	120
		28					10		54	228.5					
26	Wilschut 1997	29	36F	S	12		5		85	359.7			5h: C; 48h: R	HD	456
27	Faisy 2000	30	43F	S	40	(r)	6		59.0	249.7			6h: C, MA, R; 9h: SZ, H	AC, AA	120
		31	25F	S	24	(s)	36		36	152.3			C, MA, H	AC, RC	168
		31					48		13.5	57.1					
		31					72		10.5	44.4					
28	Graudins 2002	32	31F	S	NR	(t)	17		17.7	75.0			C, MA, PN	AR, ST	312
		32					39		15.6	66.0			4d: PE	4d: HP	
		32					96		46.4	196.0					
		32					120	EC	26.0	110.0					
		32					168	EC	16.6	70.0					

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Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]												
MW carbamazepine 236.3												
MW carbamazepine epoxide 252.3												
(a) 250 mg/l in the original document which was considered to high.												
(b) epileptic.												
(c) Z?.												
(d) plus alcohol.												
(e) multiple sclerosis for 9 years.												
(f) probably A as judged from T1/2 and case report.												
(g) alcoholic.												
(h) urinary retention.												
(i) phenobarbital level 12.9 mg/l.												
(j) choreatic movements												
(k) aggressive catharsis.												
(l) hypothermia.												
(m) time after ingestion not given in the report.												
(n) 200 mg/l alcohol initially.												
(o) plus azetazolamide and flurazepam.												
(p) plus acetylsalicylic acid /initial blood level: 16 mg/l.												
(q) not on carbamazepine previously.												
(r) 600 mg carbamazepine daily.												
(s) 400mg carbamazepine and 30 mg clorazepate daily.												
(t) also benzodiazepines.												

Table 1b. Sub-lethal acute poisoning (single dose): Clinical observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: μM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: μM	Symptoms and signs	Treatment	Time (exposure to recovery): h
1	BGPC: HP 20271	1	23	NR	NR				24.0	102			C		NR
2	BGPC 1989: 12923	2	69	NR	1				21.0	89			MS, N		NR
3	BGPC 1993: 27246	3	38	NR	1.4				24.7	105			MS	AR	NR
4	SPC 1988:7	4	22F	S	NR				18.9	80			0h:C; 24h:RM	0h: ST, AR	NR
5	SPC 1988:8	5	38F	S	NR	(a), (b)			28.4	120			ba: V; 0h: C, CY, P	0h: ST, AR	48
		5											l: LP, SZ; 24h: RM		
6	SPC 1988:9	6	40F	S	NR	(b)		(c) p	42.6	180			0h:C	0h: ST	24
7	SPC 1989:2	7	21F	S	NR				39	165			ba:C; 0h: MS		24
8	de Groot 1984	8	22M	S,A	NR				29	123	17.8	70.5	ba:MS; 0h: C	HP 4h	NR
		9	45F	S,Z	NR	(d), (f)			27	114	166	657.4	0h: MS,(e); 8h: C, LP(e)	HP 4h	NR
9	May 1984	10	22M	NR	NR				65.9	279			0h: C; 40h: RM;	0h: ST, RC	NR
		11	27M	NR	NR				45	190			0h: C, H; 48h: RM	0h: ST, RC	NR
10	Kossay 1985	12	16F	NR	NR				43	182			0h: MS; l: C	ST(g)	NR
		13	16 F	NR	NR				38	161			0h: MS, N	ST(g)	NR
11	Vree 1986	14	35M	S,Z	12	(h)		p	80	339	119	471.2	NR	HP 6hx3	NR
		15	36M	S,Z	18	(h)		p	50	212	39.6	156.8	NR	NR	NR
		16	27F	S,A	6			p	37	157	11.1	44	NR	NR	NR
12	Watson 1986	17	30M	S,Z	NR				40	169			0h: C; 3h: AP; 24h: G(i)	0h: ST, AR	168
		17											4d: RM/(i)	5h: AR	
13	Mall 1987	18	21F	S,Z	NR				43.6	185			MS, H	ST	NR
14	Zuber 1988	19	35F	S	NR				27.8	118			C	ST	NR
15	Weaver 1988	20	17F	S,Z	NR	(d)			29	123			0h:C; 20h: RM	0h: ST	48
16	Schläfke 1991	21	42F	S,A	50	(j)			28.1	118.7			0h: DC; l:P: 5 d:RM	0h: ST,AR,	360
		21							23.5	99.6				FD, HD, RC	
		21							25.5	108					
17	Höjer 1993	22	54M	S,Z	NR	(k), (d)		p	67.4	285			0h:DC; l: SZ; 8h: HA, LP	0h: ST, RC,	96
		22											36h: RM	AR	
		23	28F	NR	NR			p	40.2	170			C, H		NR
		24	17M	NR	NR			p	28.1	119			C		NR
		25	20F	NR	NR			p	41.6	176			C, SZ, H, AP		NR
		26	38F	NR	NR			p	49.6	210			C, R, H, AP		NR
18	Spiller 1991	27	15F	S,A,X	NR				71.5	303			0h: C	0h: ST, AR,	120
		27											RC		
19	Tibballs 1992	28	15	NR	8				43	182			DC, LP	ST	NR
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW carbamazepine 236.3															
MW carbamazepine epoxide 252.3															
(a) alcoholic.															
(b) plus alcohol.															
(c) initial blood ethanol 56 mmol/l.															
(d) epileptic.															
(e) hypothermia 35.0°C-34.6°C.															
(f) on medication with CBZ, phenytoin and valproic acid.															
(g) only ST.															
(h) acute on chronic.															
(i) ileus, from RC treatment?															
(j) drug addict.															
(k) patients with coma (Glasgow score of 6) 4th day of hospitalization.															
Table 2a. Lethal acute poisoning (single dose): Clinical observations (time related)															

Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	AAPCC 1988:227	1	18	S	NR		2.5		31	131.2			NR	NR	NR
2	AAPCC 1990:287	2	24	S	NR		5		41.5	175.6			NR	NR	NR
3	AAPCC 1991:358	3	35F	S	38	(a)	1		23	97.3			0h: MS; 12h: SZ, HA, CA	0h: ST	432
		3					18	p	72.5	306.8				12h: AC, CR	
		3					192	EC	0.1	0.4				17h: HP	
4	Schwartz 1983	4	37F	S,Z	20		16		260	1100			0h: DC, LP, H, SZ(f); 1h: HA; OL: H, P	0h: ST, AR, FD 1h: PM, AA	29
5	Denning 1985	5	26M	S,Z	60	(a), (b), (c)	9	(d), (e)	34.1	144.4	10.7	42.4	0h: C, LP; 17h: SZ, R, AP	0h: AR	25
		5					16	(e) p	39.4	167	48.8	193.2	21h: CA	21h: CR	
		5											OL: P		
6	AAPCC 2003:610	6	22	S	NR	(g)	6		25	106			NR	NR	NR
7	AAPCC 2002:615	7	23M	S	NR	ET, (g)	3		44	186			SZ, CA	3h: RC	NR
		7					48		116	491					
8	AAPCC 1999:398	8	23	S	NR	(g)	>18		36.7	155			NR	NR	NR
9	AAPCC 1997:378	9	27M	S	NR		5	(h)	17.4	73.6			HF, CA	5h: RC	
		9					48		51.4	218					
10	Spiller 2001	10	19F	S	40	(i)	1.5	(j)	14.5	61			2h: C; 6h: SZ; 9h: MA, HF	1.5h: RC	11
		10					9		47.7	202			10.5h: CA	6h: AC; 9h: AC	
11	Mordel 1998	11	27M	S	NR	ET, (k)	2	(l)	48.9	12.5			15h: HF, SZ	15h: RC	NR
		11					13		70.0	19.2					
		11					>13	(m)	71.1	24.4					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW carbamazepine 236.3															
MW carbamazepine epoxide 252.3															
(a) epileptic.															
(b) on Carbamazepine 600 mg/day.															
(c) plus alcohol.															
(d) ethanol blood 540 mg/l.															
(e) unbound Carbamazepine epoxide in serum 24 and 20%.															
(f) myoclonic reflexes.															
(g) acute on chronic.															
(h) phenytoin 4.6 mg/l and valproic acid 76 mg/l.															
(i) also phenytoin.															
(j) phenytoin 5.5 mg/l and valproic acid 4 mg/l.															
(k) epileptic.															
(l) phenytoin 27.2 mg/l.															
(m) phenytoin 19.6 mg/l.															

Table 2b. Lethal acute poisoning (single dose): Clinical observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/ml	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	AAPCC 1986:177	1	34M	NR	NR			(a)	54.8	232			0h: C, SZ, LP; I: HA, F 16h: RM; 52h: KF	0h: ST, AR AC I: AA	E77
2	AAPCC 1992:301	2	35	S	NR				67	284			NR	NR	NR
3	AAPCC 1992:302	3	51	S	NR		>12		72	305			NR	NR	NR
4	AAPCC 1993:282	4	15	S,Z	NR				58	245			ba: CA		NR
5	Krarup 1981	5	33M	S,Z	E10	E	24		28.6	121			0h: MS, N; 8h: G; 24h: SZ, RA, K; 30h: F	0h: ST 24h: AR	NR
6	Fisher 1988	6	34M	S,Z	NR	(b), (c)	<5		54	229			0h: SZ, PS, C 6h: RA, DC, CF	0h: ST, AC 6h: AR	96
7	Höjer 1993	7	34M	S,Z	NR	(d)		p	51.5	218			0h: C, SZ, CA; I: HA, SZ	0h: ST, AR, CR	72
8	AAPCC 2003:611	8	42	S	NR				53	224			NR	NR	NR
9	AAPCC 2001:557	9	33	S	NR	(e)			55	233			NR	NR	NR
10	AAPCC 2001:558	10	44	S	NR	(e)			95.3	404			NR	NR	NR
11	AAPCC 2000:492	11	20	U	NR	(e)			24	102			NR	NR	NR
12	AAPCC 2000:494	12	27	S	NR	(e), (f)			67.1	284			NR	NR	NR
13	AAPCC 1997:377	13	19	S	NR				47	199			NR	NR	NR
14	AAPCC 1997:379	14	37	S	NR	(e)			122	516			NR	NR	NR
15	AAPCC 1997:381	15	47	S	NR	(e)			43	182			NR	NR	NR
16	AAPCC 1997:382	16	56	S	NR	(e)			61	258			NR	NR	NR
17	AAPCC 1996:357	17	31	S	NR				161	681			NR	NR	NR
18	AAPCC 1995:350	18	30	S	NR	(e)			40	169			NR	NR	NR
19	AAPCC 1994:368	19	72	U	NR				30	127			NR	NR	NR
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW carbamazepine 236.3															
(a) 28 h later 12.7 mg/l.															
(b) epileptic.															
(c) same case as in Table 3a.															
(d) affective disorder treated by Lithium and Carbamazepine, blood lithium level zero.															
(e) acute on chronic.															
(f) ingestion and aspiration.															

Table 3a. Post-mortem observations (time related)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	Denning 1985	1	37M	S,Z	NR				48.0	203			C, AP	NR	12
		2	26M	S,Z	60	(a), (b)		T,sr (c), (d)	30.6	129	35.7	141.4	OL: P		25
		2													
2	Fisher 1988	3	34M	S,Z	NR	(a), (e)		wb	8.6	36			0h: C; 6h: DC, I:CF		E96
		3											OL: K, L		
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW carbamazepine 236.3															
MW carbamazepine epoxide 252.3															
(a) epileptic.															
(b) same case as in Table: Lethal acute poisoning (single dose): Clinical observations (time related).															
(c) 1900 mg/l ethanol.															
(d) unbound CBZ i serum 19%.															
(e) same case as in Table 2b.															
Table 3b. Post-mortem observations (without time information)															
Ref No.	Reference (linked to full source)	Case No.	Case age/sex	Case category	Dose: g	Notes (case, dose, time)	Time (exposure to sampling): h	Notes (blood sample)	Blood conc.: mg/l	Blood conc.: µM	Metabolite Blood conc.: mg/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
1	AAPCC 1987:175	1	62	S					47	199					NR
2	Baselt/Rousseau 1981	2	20M	NR		(a)			53	224			fd		NR
3	Myreng 1982	3	34M	U,A	20	(b), (c)			40.2	170			fd		NR
4	Druid 1997	4	NR	NR		(d)			45	190					NR
5	AAPCC 1997:376	5	19	S					47.7	202					NR
6	AAPCC 1997:380	6	42	S					112.9	478					NR
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW carbamazepine 236.3															
(a) epileptic.															
(b) chronic alcoholic.															
(c) plus some alcohol and phenobarbital, alcohol in blood 0, phenobarbital in blood 160 micromol/l.															
(d) mean value from 7 cases of pure carbamazepine fatal intoxication.															