

53-amitriptyline hydrochloride (CAS# 549-18-8)															
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	SPC 1981:1	1	Ad,F	NR	NR		18		1.4	5.6	2.1	6.9	0h: DC, HA; I: LP	0h: AR, ST, CR	72
2	SPC 1989:1	2	39M	NR	7.5	(b)	2		0.4	1.3	0.7	2.2	0h: C, LP, MA, HA, SZ; 48h: PS	0h: ST, AA, CR, UL, AR	96
3	SPC 1991:2	3	53M	NR	NR	E, (b)	2		1.3	4.6	1.5	5.1	0h: MS; 0.5h: C;	0h: ST	NR
4	Royds 1970	4	39M	NR	1.25	E	2.5		0.1	0.2	0.2	0.6	1h: HA, LP; I: AP	0.5h: AR	
5	Spiker 1975	5	19F	Z	NR		15		1.7	6.2	2.2	7.9	0h: C	0h: ST; I: AR	72
6	Marshall 1980	6	28M	S	3		10		1.2	4.3	1.9	6.8	0h: C, H	0h: ST	192
7	Comsock 1983	7	37F	NR	0.75	(c)	1		1.4	4.9	1.5	5.4	0h: C, HA, R	0h: ST, AR, AA	240
8	Buckley 1984	8	35F	NR	NR		19		0.8	2.0	1.3	4.7	0h: MS; 10h: C, SZ; 17h: MA, R	0h: ST	NR
9	Swartz 1984	9	36F	Z	9.2		6				1.0	3.5	0h: C 6-12h	0h: ST, AR, RC for 12h	NR
10		10	31F	Z	6		1,5				0.5	1.9	0h: C 6-12h	0h: ST, AR, RC for 26h	NR
11		11	18F	Z	3.65		1				0.8	2.8	0h: C 6-12h	0h: ST, AR, RC for 22h	NR
							7	y			0.4	1.6			
							28				0.3	1.0			

amitriptyline hydrochloride

10	Cohnberg 1985	12	48F	A,S	NR	(b), (e)	1		0.9	3.4	1.2	4.3	0h: C, HA, LP	0h: ST;	48
		12												1h: AR for 2.5h	
11	Rinder 1988	13	45M	NR	8	E	6				2.4	8.6	0h: C; 2h: LP, HA	0h: ST, AR, AC;	96
		13				E	8	p			3.0	10.8		2h: RC	
		13				E	24				0.8	2.9			
12	Hultén 1992	14	9 cases	NR	3	ED, ET	8	E					0h: C	0h: ST	NR
13	Zakynthinos 2000	15	44F				5		4.9	18.6			5h: C, MA	5h: AR, ST, HA	240
		15					21		1.3	4.7					
14	Heard 1999	16	48M	N	1.5	(f)	1		1.3	4.7			1.5h: C, HF	ST, RC	>24
		16					2		2.9	10.4				(g)	
		16					3		5.8	20.9					
		16					4		7.2	25.9					
		16					5		3.7	13.3					
		16					6		2.4	8.6					
		16					8		1.5	5.4					
		16					12		0.8	2.9					
		16					16		0.7	2.5					
		16					28		0.5	1.8					
15	Fippel 2005	17	49F	A	2.5		2		2.5	9			2h: HCF, CA	ST, AR	120
		17					14		0.5	1.8					
16	Fallbericht 2001	18	38F	S	3.75	E	24		0.3	1.1	0.8	3.0			
		18				E	120		0.07	0.25	0.2	0.6	C, HA	ST	240
		18				E	216		0.05	0.2	0.07	0.3			
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]</b>															
MW amitriptyline = 277.4															
MW nortriptyline = 263.4															
(a) total = amitriptyline + nortriptyline.															
(b) plus some ethanol.															
(c) plus 0.12 g perphenazine, phenobarbital (serum 11 mg/l) and ethanol (0.3 g/l).															
(d) removing 0.75% of ingested dose.															
(e) plus some diazepam.															
(f) also lorazepam, caffeine, butalbital, and paracetamol.															
(g) treated with ovine antibodies to tricyclic antidepressants after three times 1-4 h.															

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	Spiker 1975	1	27F	A	NR		<24		0.6	2.2	(a) 0.64	(a) 2.3	0h: MS, LP	NR	
2	Hallstrom 1976	2	19	NR	NR				0.7	2.7			0h: C	NR	
		3	43	NR	NR				0.1	0.4			0h: C, HA	NR	
3	Biggs 1977	4	36F	A	2.75		<24		1.0	3.7	1.2	4.3	0h: C, LP, HA	AR	
		5	34M	Z	NR		<24		1.5	5.4	1.9	6.7	0h: C; l: SZ	AR	
		6	30F	Z	NR		<24		1.8	6.6	2.1	7.4	0h: C; l: SZ, HA	AR	
		7	26F	NR	NR						1.4	5.2	0h: C, HA; l: SZ	AR	
		8	44F	NR	NR						1.1	4.1	0h: C	NR	
4	Kuhn 1984	9	42F	S	9	(b)			0.8	2.9	1.5	5.5	0h: C; 48h: HA; l: LP	0h: ST	
		9													
5	Cohnberg 1985	10	48F	NR	NR	(c)			0.9	3.2	1.2	4.3	0h: C, HA, LP	0h: ST	
6	Hantson 1996	11	51F	S	7.3				2.2	7.9			0h: C; l: SZ, HA, CHF, F	AR, ST	72
		11											48h: CA		
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]</b>															
MW amitriptyline = 277.4															
MW nortriptyline = 263.4															
(a) total = amitriptyline + nortriptyline.															
(b) acute on chronic.															
(c) also ethanol.															

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 1987:194	1	37	S	NR	(b)	24		1.6	5.8	(a)	(a)			
2	AAPCC 1989:290	2	35	S	NR		1.5		0.3	1.1					
3	AAPCC 1989:302	3	49	S	NR	(c)	3.5		1.4	5.0	1.6	5.8			
4	AAPCC 1991:367	4	32	S	NR		2		1.0	3.6					
5	AAPCC 1992:348	5	32	S	NR	(d)	24		1.1	4.0	1.7	6.1			
6	FPPC 92:12006	6	42F	NR	2.4	(e)	2		2.2	7.9			ba: SZ, H; l:LP, HA	ba: AC, AR; l:CR	
		6					30		1.0	3.6			0h: DC, LP, HA	0h: ST, AR, AA	40,5
		6											l: F, HA, IP		
7	Hurst 1981	7	33M	NR	NR	E	10		1.1	3.9	1.5	5.4	0h: C, R, HA;	0h: ST	66
		7				E	16	y	0.7	2.3	1.0	3.6	l: PN, RA	l: extubated	
		7				E	40		0.4	1.4	0.8	2.9			
8	Rinder 1988	8	38F	A	NR	(f)	1				2.7	9.7	0h: C, RA, SZ	0h: ST, AR, AC	2
		8											0.5h: HA	0.5h: RC	
9	Franssen 2003	9	38F	A	NR	E	3		2.9	10.4	3.6	13.2	3h: HF, MA; l: R, B		336
		9				E	30		0.9	3.2	1.25	4.5			
		9				E	60		0.75	2.7	1.2	4.2			
		9				E	80		0.6	2.2	1.05	3.9			
		9				E	105		0.8	2.9	1.5	5.6			
		9				E	150		0.35	1.3	0.85	3.2			
		9				E	200		0.2	0.7	0.5	1.8			
		9				E	250		0.2	0.7	0.45	1.6			
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms. symptoms and signs. treatment)]</b>															
MW amitriptyline = 277.4															
MW nortriptyline = 263.4															
(a) total = amitriptyline + nortriptyline.															
(b) also aspirin.															
(c) also ethanol.															
(d) also methadone.															
(e) ethanol in blood.															
(f) also ethanol 1600 mg/l on admission (1h).															

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/l	Metabolite Blood conc.: µM	Symptoms and signs	Treatment	Time (exposure to death): h
											(a)	(a)			
1	AAPCC 1986:181	1	29	NR	NR				0.2	0.7					
2	AAPCC 1986:183	2	46	S	NR				1.3	4.7	1.9	7.0			
3	AAPCC 1986:188	3	59	S	NR				3.4	12.2	3.9	14.1	ba: CA		
4	AAPCC 1986:189	4	68	S	NR						1.2	4.3	ba: CA		
5	AAPCC 1987:186	5	49	S	NR				0.9	3.2	1.1	4.1	ba: CA		
6	AAPCC 1988:235	6	27	S	NR				2.8	10.1					
7	AAPCC 1988:236	7	27	S	NR				0.9	3.2	1.4	5.2			
8	AAPCC 1988:243	8	40	S	NR				2.3	8.3	3.2	11.4	ba: CA		
9	AAPCC 1989:284	9	17	S	NR				0.7	2.5	0.9	3.3	ba: CA		
10	AAPCC 1989:292	10	49	S	NR						3.1	11.6	ba: CA		
11	AAPCC 1989:295	11	58	S	NR				2.3	8.3					
12	AAPCC 1990:294	12	20	S	NR				2.0	7.2	2.8	10.0			
13	AAPCC 1990:296	13	31	S	NR				6.5	23.4					
14	AAPCC 1990:299	14	39	S	NR				7.7	27.7	14.0	50.4			
15	AAPCC 1990:304	15	69	S	NR				2.1	7.6	2.8	10.4	ba: CA		
16	AAPCC 1990:306	16	>17	NR	NR						1.0	3.4			
17	AAPCC 1991:373	17	43	S	NR				0.5	1.8	0.8	2.8			
18	AAPCC 1991:376	18	48	S	NR				3.7	13.3					
19	AAPCC 1991:377	19	51	S	NR				11.4	41.0	11.7	52.0			
20	AAPCC 1991:378	20	69	S	NR				0.5	1.8					
21	AAPCC 1992:318	21	37	S	NR				0.2	0.7	0.3	1.2	ba: CA		
22	AAPCC 1992:319	22	38	S	NR				21.1	76.0					
23	AAPCC 1992:320	23	41	S	NR				2.3	8.3					
24	AAPCC 1993:294	24	30	A,S	NR				0.5	1.8	0.6	2.0			
25	Biggs 1977	25	45F	NR	NR						1.9	6.8	0h: C, HA, SZ; l: CA	0h: ST, AR	
26	Lindström 1977	26	30F	X	6.3				4.2	15.0			0h: DC, CA		
		26											l: R, CP, RF, TR	0h: ST, CR, AR	336
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]</b>															
MW amitriptyline = 277.4															
MW nortriptyline = 263.4															
(a) total = amitriptyline + nortriptyline.															

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	Worm 1969	1	27F	S,A			7.5		3.0	11	(a)	(a)				
		2	45F	S,A			36		3.0	11						
2	Norheim 1974	3	33F	NR	1.2		65		1.0	3.6	3.0	10.7				
3	Bailey 1980	4	60F	NR		E, (b)	14		0.3	1.1	0.6	2.3				
		5	41M	NR		E, (b)	16		1.0	3.6						
		6	25F	NR			E	3		8.3	29.9	8.4	33.5			
		7	26F	NR			E	23		1.4	5.0	2.4	8.6			
		8	22M	NR			E	10		0.4	1.4	1.5	5.5			
4	Hurst 1981	9	33M	NR			66		0.6	2.2	0.8	3.0	OL: P			
5	Callaham 1985	10	67F	NR	0.6		2		5.4	19.4	6.3	22.6	0h: MS; 0.5h: C	0h: ST		
		10											1.5h: CA	0.5h: AR		
		11	NR	NR				48		0.2	0.5	0.5	1.6			
		12	NR	NR				52		0.6	2.2	1.9	6.8			
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]</b>																
MW amitriptyline = 277.4																
MW nortriptyline = 263.4																
(a) total = amitriptyline + nortriptyline.																
(b) plus ethanol.																

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
											(a)	(a)			
1	AAPCC 1988:234	1	23	S	NR				5.7	20.5	7.4	26.6			
2	AAPCC 1988:240	2	32	S	NR				3.3	11.9	–	–	ba: CA		
3	AAPCC 1988:241	3	35	S	NR				–	–	26.7	97.0	ba: CA		
4	AAPCC 1988:246	4	68	S	NR				0.4	1.3	0.8	2.7	ba: CA		
5	AAPCC 1989:286	5	25	S	NR				10.8	38.9	12.4	44.5	ba: CA		
6	AAPCC 1989:288	6	31	S	NR				51.3	184.6	79.7	285.3			
7	AAPCC 1990:297	7	35	S	NR				2.0	7.2	3.6	13.0			
8	AAPCC 1990:298	8	38	S	NR				1.4	5.0	3.4	12.2			
9	AAPCC 1991:369	9	35	NR	NR				2.9	10.4	5.0	18.0	ba: CA		
10	AAPCC 1991:374	10	43	S	NR				6.0	21.6	9.0	32.6	ba: CA		
11	AAPCC 1992:310	11	23	S	NR				0.2	0.7	1.2	4.5			
12	AAPCC 1992:313	12	30	S	NR				7.6	27.4	11.0	39.0	ba: CA		
13	AAPCC 1992:314	13	32	S	NR				0.4	1.4	0.8	2.9	ba: CA		
14	Tipett 1966	14	NR	NR	NR				6.0	21.6	–	–			
15	Mac Bay 1967	15	33	NR	NR				11.0	39.6	–	–			
16	Munksgaard 1969	16	48F	S	3.1				5.0	18.0	–	–			
		17	24M	S	2.5	(b)			9.0	32.4	18.0	64.0			
17	Bonnichsen 1970	18	24F	S	NR				1.0	3.6	–	–			
		19	25F	S	NR				–	–	5.0	18.0			
		20	69F	NR	NR				1.0	3.6	–	–			
18	Glogner 1973	21	35F	S	NR	(c)			–	–	5.0	18.0			
19	Robinson 1974	22	26F	NR	NR				2.9	10.4	–	–			
		23	64M	NR	NR				1.7	6.1	–	–			
		24	60F	Z	NR				2.8	10.1	–	–			
		25	62M	Z	NR				0.2	0.6	–	–			
		26	41M	NR	NR				1.9	6.8	–	–			
		27	55F	NR	NR				0.4	1.3	–	–			

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20	Norheim 1974	28	26M	NR	NR		<8		10.0	36.0	13.0	46.0		
		29	24M	NR	NR		<12		27.0	97.2	33.0	118.0		
21	Baselt 1977	30	NR	NR	NR				–	–	3.0	10.8		
		31	4 cases		NR				–	–	12.0	43.2		
22	Bailey 1980	32	55F	NR	NR	(d)			1.4	5.0	7.9	28.4		
		33	56F	NR	NR	(d)			3.9	14.0	4.6	16.7		
		34	33F	NR	NR		<25		6.8	24.5	7.6	27.4		
		35	38F	NR	NR		<15		1.6	5.8	1.8	6.8		
23	Gottscholk 1980	36	8 cases		NR			(e)	–	–	9.6	34.6		
24	Hebb 1982	37	38F	NR	NR				8.7	31.3	14.0	50.1		
		38	26F	NR	NR				8.5	30.6	13.5	48.3		
		39	41M	NR	NR				0.5	1.7	0.8	2.9		
		40	36M	NR	NR				1.4	5.0	3.1	11.1		
		41	59M	NR	NR				1.0	3.6	1.5	5.4		
25	Hanzlick 1984	42	5 cases		NR			(e)	–	–	5.1	18.4		
26	Paterson 1985	43	17 cases		NR				–	–	10.8	38.9		
27	Callaham 1985	44	NR	NR	NR		>1		5.7	20.5	9.7	34.7		
		45	NR	NR	NR		>6		5.1	18.2	8.5	30.4		
28	Tracqui 1990	46	30M	2	2				0.8	2.9	1.9	7.1		
29	Baselt 1990	46	4 cases		NR				3.7	13.3	17.3	61.0		
30	Prahlow 2005	47	40M	NR	NR				1.7	6.1	2.5	9.1		
<b>Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]</b>														
MW amitriptyline = 277.4														
MW nortriptyline = 263.4														
(a) total = amitriptyline + nortriptyline.														
(b) plus some ethanol.														
(c) plus some chlordiazepoxide.														
(d) no other drugs involved.														
(e) geometric mean of ranges.														