

16-sodium valproate (CAS # 1069-66-5) / valproic acid (CAS # 99-66-1)															
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	Faller 1981	1	18F	S, Z	25	E (a), (b)	4		59	409			0h: C; 3h: RA	0h: ST	NR
		1					49	p	114	791			96h: RM/C	3h: AR	
		1					100		13	90					
2	Mortensen 1983	2	20F	S, Z	75	(a)	7		1550	10749			0h: MS, 2.5h: C	0h: ST, NX	192
3	Pedersen 1984	2					10	p	2120	14702			16h: DC(c); 24h: F	5h: AR	
		2					17,5		1170	8114			48-120h: RM	16h: HD 8h	
		2					25.5		180	1248				28h: HP 4h	
		2					29.5		80	555					
		2					33.5		100	693					
		2					53.5		50	347					
4	Lund-Karlsen 1983	3	16F	S, Z	30	(a), (d)	6.0		710	4925			0h: MS(e); 12h: RM	0h: ST	72
		3					30.0		130	902			48h: H(f), L		
		3					54.0		48	332					
5	Bigler 1985	4	20M	S, A	>100	X, (a), (d)	36.0		300	2083			0h: C, H(f); 24h: F	0h: ST, AR	1440
		4					84.0		61	423			10d: still C, F, N		
		4											12-18d: RM; SS: N(g)		
6	van der Merwe 1985	5	38M	S	NR	E, (h)	8.0		1080	7490			0h: C, P, LP	0h: ST, AR;	35
		5				E	10.0	p	1150	7975			23h: RM/C	1h: HP for 8h	
		5				E	18.0		520	3606				18h: HP for 4h	
		5				E	28.0		270	1872					
		5				E	68.0		50	347					
7	Lakhani 1986	6	48F	S, Z	25	(a), (i)	4.5		150	1040			0h: MS; 3h: C for 30h		NR
		6					18.0		735	5100			day 3: L; day 9: RM/L		
		6											E(j)		
8	Alberto 1989	7	22M	S, A, X	5	(k)	6		180	1251			0h: MS(c)	0h: ST, NX, RC	20
		7					15		59	411			l: NS		
9	SPC 93:2	8	22M	NR	36-45	(a)	16		1442	10000			KF, LF	HD	>48
10	Payen 2004	9	29M	S	36	(l)	3		36	250			44h: C	AR l:RC, FD	120
		9					44		81	561					
		9					54		256	1774					
11	Ingels 2002	10	18	S	NR	(a)	1		21	146			Symptoms during 24h	RC	NR
		10					8		705	4886					
		11	41	S	NR	(a)	1		66	457				RC, HD	NR
		11					10		703	4872					

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12	Johanson 1999	12	43F	S	19	E	5	1380	9563			0h: C, LP	RC, 5h: HD	240
		12				E	9	940	6514					
		12				E	10	670	4643					
		12				E	11	400	2772					
		12				E	12	280	1940					
		12				E	13	224	1552					
		12				E	14	172	1192					
		12				E	15	164	1137					
13	Brubacher 1998	13	24F	S	NR	(a), (m)	1.5	0	0			l: C, 8h: C	0h: RC l:AR, 19h: HD	>48
		13					11.5	1066	7388			13h: C, MA		
		13					14	1075	7450					
		13					18	713	4940					
		13					19	563	3900					
		13					24	185	1280					
		13					32	76	527					
14	Gracia 2004	14	46F	S			4	1626	11268			0h: C, MA, HF	RC, 10h: HD	NR
15	Chan 2004	15	47F	S	38	(a), (n)	9	356	2468			0h: C, MA, HF	ST, HD	NR
		15					14	281	1949					
16	Graudins 1996	16	32F	S	30	(o)	5	105	728			C, LF, BD	ST, RC, HP	120
		16					8	296	2051					
		16					14	825	5717					
		16					17	1380	9563					
		16					21	1370	9494					
		16					23	1380	9563					
		16					24	910	6306					
		16					25	790	5475					
		16					26	690	4782					
		16					35	500	3465					
		16					39	285	1975					
		16					46	102	707					
17	Kay 2003	17	48F	NR	48		5.5	332	2301			0h: C, LP, MA	0h: ST, HD	NR
		17					8.5	1402	9716					
		17				E	13	1225	8489					
		17				E	30.5	500	3465					
		17				E	34.5	200	1386					
		17				E	51	100	693					
18	Minari 2002	18	29F	S	160	E	5	2493	17276			0h: C, R, LP, MA	AR, RC, 11h: HD	336
		18				E	14.5	821	5690					
19	Guillaume 2004	19	41M	S	50		2	789	5468			NR	ST, HD,	NR
		19					4	1150	7970					
20	Ruskosky 1999	20	23F	NR	NR		7,5	791	5485			C	ST, HD	72
		20					11.5	753	5219					
		21	37F	NR	NR		4	94	652			C	ST, HD	72
		21					11	1290	8945					
		21					27	417	2891					
21	Kupferschmidt 1998	22	29F	NR	NR	(m), (n)	36	660	4574			0h: MA, LP, C, HF	AR, ST	432
		22										10d: BD		

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Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]													
MW sodium valproate = 166.2													
MW valproic acid = 144.2													
NX=naloxone													
(a) sodium valproate.													
(b) plus 30 mg diazepam.													
(c) somnolence.													
(d) enteric coated tablets.													
(e) soporous.													
(f) supraventricular tachycardia.													
(g) optic nerve atrophy.													
(h) time unknown, according to authors.													
(i) plus 40 mg diazepam and 50 mg temazepam.													
(j) hypophosphatemia (0.5 mmol/l day 5).													
(k) valproic acid.													
(l) valpromide.													
(m) also ethanol.													
(n) also venlafaxine, ibuprofen.													
(o) plus chlorpheniramine.													

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: BI 04398	1	29	NR	NR		NR		332	2300			DC, BE		NR
2	BGPC 1989: 09620	2	Ad	NR	15		NR		490	3398			V, MS,	HP	NR
3	BGPC 1990: 07582	3	23	NR	30		NR		16700	115811			V, MS		NR
		3													
4	SPC 1988: 1	4	AdF	S			NR		1032	7159			0h: C, H; 3d: RM		96
5	Palatnik 1989	5	37F	S	NR		NR		1579	10950			MA, DC, EL(a); LS: (b)	ST, AR, RC, NX	NR
6	Tank 1993	6	20M	S, Z	NR	(c)	NR	p	1262	8752			C, MA, LP	HD+HP	NR
7	SPC 97:1	7	19F	NR	NR		NR		1884	13065			0h: C, CY, HG	HD, AR	336
		7											24h: PA		
8	Kroll 2002	8	38M	NR	45	(d)	NR		726	5013			C, R	ST, HD	>24
		9	43F	NR	19		NR		940	6514				HD x 2	NR
		10	27M	NR	NR		NR		1414	9799			C, R, LF, BD for 5days	HD & HP X2	NR
9	Lavigne 2004	11	17F	NR	45		NR		1153	7990			C, LF, KF, BD, BE	AR, HD,	456
10	Fernandez 1996	12	31M	S	105	(e)	NR		1307	9057			0h: C, LP, H, BD, P	ST, HP, HD	NR
11	SPC 91:1	13	30F	NR			NR		900	6239			0h: C	AR, ST, HD	2
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW sodium valproate = 166.2															
MW valproic acid = 144.2															
NX=naloxone															
(a) hypocalcemia, hypernatremia and hyperammonemia (107 mg/l).															
(b) alopecia.															
(c) plus phenobarbital, adm. blood level 95.8 mg/l.															
(d) plus unknown amounts of resperidone and bupropion.															
(e) plus gabapentin.															

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	Connacher 1987	1	40F	S, Z	NR	E	6		2191.8	15200			ba(-1h): SZ; 0h: C, LP	0h: ST	76
		1					8		2480.2	17200			3h: DC; I: LP, R, KF,	3h: AR	
		1					10	p	2725.4	18900			B(a)		
		1					26		2249.5	15600			72h: CA		
		1					50		1831.3	12700			OL: PA, P, H, K		
		1					74		1658.3	11500					
2	Felgenhauer	2	20M	S	NR	(b)	20		1361	9438			0h: MS; I: DC, RA, EL(c)	0h: ST, AR	192
		2				E	44		449	3114			BE, KF, PA, BD		
3	Christianson 2001	3	24F	S, A	350		3		407	2821			MA, KF	AR, ST	48
		3					14		2204	15274					
		4	45M	S, A	207.5		1		108	748			MA, KF,(d)	AR, ST	79
		4					13		1609	11150					
4	Berthelot-Moritz 1997	5	34M	S	NR	(e)	3		360	2499			DC, LP, BE,	AR, ST	336
5	Thabet 2000	6	15F	S	20		5		420	29106			C, RA, HCF, BE	AR, ST	96
		6					10		1550	19742					
		6					24		640	4435					
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW sodium valproate = 166.2															
MW valproic acid = 144.2															
NX=naloxone															
(a) hypothermia.															
(b) plus alcohol.															
(c) hyperammonemia 895 mg/l.															
(d) multiorgan failure.															
(e) plus phenobarbital, phenytoin, progabide, and domperidone.															

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
1	AAPCC 1988:231	1	24F	S, A	28	E, (a)	4		1193	8273			0h: NS; 1h: C; 5h: DC	0h: ST; 1h: AR	
		1					l:		1228	8516			l: EL(b), CP, LP	14h: HP 8h	
		1				E	29		21	146			32h: CA		E36
2	AAPCC 1991: 362	2	42	NR	NR		NR		274	1900					
3	AAPCC 1994:381	3	28	S, A	NR		NR		958	6644					
4	AAPCC 1995:351	4	32		NR		NR		171	1184					
5	Garnier 1982	5	15F	S	NR	(c)	NR	(d)	1970	13672			0h: C; 20h: HCF	0h: ST	20
6	Hintze 1987	6	29M	S, Z	NR	E, (e)	18		2300	15950			ba(-2): MS, C; 0h: DC		
		6					42		546	3786			48h: BE, F		
		6					66		419	2906			9d: BD(f), RM		336
7	AAPCC 2004:627	7	28	S, A			NR		631	4376			NR	NR	NR
8	AAPCC 2003:626	8	37	S, A			NR		843	5846			NR	NR	NR
9	AAPCC 2001:497	9	31	S, A			NR		1200	8322			NR	NR	NR
10	AAPCC 2001:499	10	52	U, Z			NR		951	6595			NR	NR	NR
11	AAPCC 1999:406	11	17	S, A			NR		2250	15603			NR	NR	NR
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW sodium valproate = 166.2															
MW valproic acid = 144.2															
(a) valproic acid.															
(b) hypocalcemia.															
(c) with congenital adrenal hyperplasia.															
(d) at admission.															
(e) unknown time.															
(f) trombocytopenia.															

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	Lokan 1988	1	34M	S, Z		(a)	48	T, (b)	720	4993		OL: none			
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW sodium valproate = 166.2															
MW valproic acid = 144.2															
(a) plus phenobarbital.															
(b) 36 mg/l phenobarbital and 0.4 mg/l dextropropoxyphene in postmortem blood.															
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	Connacher 1987	1	40F	S, Z	NR	(a)	NR	wb, T	1738	12050			DC, KF, PA, R; OL: PA, P, H, K	ST, AR	E76
2	Poklis 1998	2	28M	S	50		NR		1065	7380			PE, BE	NR	E24
Footnotes [General Glossary (via link) lists definitions of common abbreviations (general terms, symptoms and signs, treatment)]															
MW sodium valproate = 166.2															
MW valproic acid = 144.2															
(a) the same case as in table: Lethal acute poisoning (single dose): Clinical observations (time related).															