

Appendix A

Tables of Impairment Findings by Behavioral Category

(Listings by Study & Drug)

SEDATION - SUBJECTIVE MEASURES - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

TABLE 4.

Sheet: SEDATION

SC#99 Page 2: sorted by Generation, DRUG, Dose, Ref#, Measure

Ref#	REFERENCE	MEASURE of Subjective Sedation	SC#	Gen	DRUG	Dose, mg	IMPAIRMENT?	
							YES	NO
1st Generation Drugs:								
8	Biehl (1979)	SEDATION - VAS of mood adjectives	99	1	CHLORPHENIRAMINE	4		NO
26	Clarke & Nicholson (1978)	SEDATION - VAS	99	1	CHLORPHENIRAMINE	4		NO
35	Dhorranintra et al. (1990)	SEDATION - VAS & Alertness rating	99	1	CHLORPHENIRAMINE	4	YES	
61	Kulshrestha et al. (1978)	SEDATION - VAS for Sedation	99	1	CHLORPHENIRAMINE	4	YES	
76	Nicholson (1979)	SEDATION - VAS	99	1	CHLORPHENIRAMINE	4		NO
120	Unchern et al. (1986)	SEDATION - 7-pt ratings & Sx report	99	1	CHLORPHENIRAMINE	4	YES	
131B	Witek, Jr. et al. (1995)	SEDATION - VAS (PC), SSS	99	1	CHLORPHENIRAMINE	4	YES	
69	Meador et al. (1989)	SEDATION - reported occurrences	99	1	CHLORPHENIRAMINE	8	YES	
83	Nicholson et al. (1991)	SEDATION - VAS, Stanford (SSS)	99	1	CHLORPHENIRAMINE	10	YES	
63	Lee et al. (1988)	SEDATION - factor 1 of Mood ratings	99	1	CHLORPHENIRAMINE	12		NO bP
25	Chapman & Rawlins (1982)	SEDATION - VAS	99	1	CHLORPHENIRAMINE	16	YES	
59	Khosla et al. (1993)	SEDATION - VAS	99	1	CHLORPHENIRAMINE	16	YES	
26	Clarke & Nicholson (1978)	SEDATION - VAS	99	1	CLEMASTINE	1		NO
42	Gaillard et al. (1988)	SEDATION - VAS scales	99	1	CLEMASTINE	1		NO wP
91	Peck et al. (1975)	SEDATION - VAS set of states	99	1	CLEMASTINE	1		NO
97	Reinberg et al. (1978)	SEDATION - (-VAS rectangle 22cm)	99	1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	SEDATION - VAS series	99	1	CLEMASTINE	1	YES	
53	Hopes et al. (1992)	SEDATION - Adjective checklists	99	1	CLEMASTINE	2	YES	
87	Patat et al. (1994)	SEDATION - VAS series (LARS)	99	1	CLEMASTINE	2		NO wP
91	Peck et al. (1975)	SEDATION - VAS set of states	99	1	CLEMASTINE	2	YES	
124	Vuurman et al. (1994)	SEDATION - VAS, Bond & Lader	99	1	CLEMASTINE	2	YES	
64	Levander et al. (1985)	SEDATION - VAS; 3/6 sets = sedation	99	1	CLEMASTINE	3	YES	
97	Reinberg et al. (1978)	SEDATION - (-VAS rectangle 22cm)	99	1	CLEMASTINE	3	YES	
27	Cohen et al. (1984)	SEDATION - VAS; on drive day	99	1	DIPHENHYDRAMINE	25		NO
27	Cohen et al. (1984)	SEDATION - VAS; on lab day	99	1	DIPHENHYDRAMINE	25	YES	
30	Curran et al. (1998)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	25		NO
38	Fine et al. (1994)	SEDATION - POMS (PC)	99	1	DIPHENHYDRAMINE	25	YES	
120	Unchern et al. (1986)	SEDATION - 7-pt ratings & Sx report	99	1	DIPHENHYDRAMINE	25	YES	
134	Scavone et al. (1998)	SEDATION - VAS lines	99	1	DIPHENHYDRAMINE	25		NO
131B	Witek, Jr. et al. (1995)	SEDATION - VAS (PC), SSS	99	1	DIPHENHYDRAMINE	25	YES	
4	Berlinger et al. (1982)	SEDATION - VAS sed, mood adjectives	99	1	DIPHENHYDRAMINE	50		NO
20	Burns et al. (1999 - ms)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50		NO
24	Carruthers et al. (1978)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	SEDATION - VAS; on drive day	99	1	DIPHENHYDRAMINE	50		NO
27	Cohen et al. (1984)	SEDATION - VAS; on lab day	99	1	DIPHENHYDRAMINE	50	YES	
29	Cohen et al. (1987)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50	YES	
30	Curran et al. (1998)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50	YES	
39	Fink et al. (1979)	SEDATION - Alertness rating	99	1	DIPHENHYDRAMINE	50	YES	
44	Gengo et al. (1990)	SEDATION - VAS, Stanford (SSS)	99	1	DIPHENHYDRAMINE	50	YES	
57	Kaye et al. (1997)	SEDATION - Stanford SSS, VAS, Moods	99	1	DIPHENHYDRAMINE	50	YES	
66	Lines et al. (1997)	SEDATION - VAS; Bond & Lader Factor 1	99	1	DIPHENHYDRAMINE	50		NO
110	Schweitzer et al. (1994)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50	YES	
114	Simons et al. (1996)	SEDATION - VAS based on SSS	99	1	DIPHENHYDRAMINE	50	YES	
116	Spector et al. (1980)	SEDATION - VAS (mean of 8)	99	1	DIPHENHYDRAMINE	50	YES	
119	Tharion et al. (1994)	SEDATION - POMS, Sx Q	99	1	DIPHENHYDRAMINE	50		NO
127	Wilkinson & Moskowitz (1990)	SEDATION - POMS	99	1	DIPHENHYDRAMINE	50	YES	
129	Wilkinson et al. (1999 - ms)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	50		NO
130A	Witek, Jr. et al. (1992)	SEDATION - VAS (PC), SSS	99	1	DIPHENHYDRAMINE	50	YES	
130B	Witek, Jr. et al. (1992)	SEDATION - VAS (PC), SSS	99	1	DIPHENHYDRAMINE	50	YES	
131A	Witek, Jr. et al. (1995)	SEDATION - VAS (PC), SSS	99	1	DIPHENHYDRAMINE	50	YES	
131B	Witek, Jr. et al. (1995)	SEDATION - VAS (PC), SSS	99	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	SEDATION - VAS; on drive day	99	1	DIPHENHYDRAMINE	100	YES	
27	Cohen et al. (1984)	SEDATION - VAS; on lab day	99	1	DIPHENHYDRAMINE	100	YES	
68	Mattila et al. (1986)	SEDATION - VAS	99	1	DIPHENHYDRAMINE	100	YES	
70	Mohs et al. (1978)	SEDATION - reported occurrences	99	1	DIPHENHYDRAMINE	100	YES	
71	Moser et al. (1978)	SEDATION - 9-pt VAS: tired, dull	99	1	DIPHENHYDRAMINE	100	YES	
94	Preston et al. (1992)	SEDATION - DEQ: Alert-Sleepy scale	99	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	SEDATION - VAS set of states	99	1	DIPHENHYDRAMINE	100	YES	
94	Preston et al. (1992)	SEDATION - DEQ: Alert-Sleepy scale	99	1	DIPHENHYDRAMINE	200	YES	
64	Levander et al. (1985)	SEDATION - VAS; 3/6 sets = sedation	99	1	HYDROXYZINE	20	YES	
65	Levander et al. (1991)	SEDATION - VAS; 3/7 sets = sedation	99	1	HYDROXYZINE	20	YES	
43	Gengo et al. (1987)	SEDATION - VAS	99	1	HYDROXYZINE	25	YES	
111	Seidel et al. (1987)	SEDATION - VAS, Stanford (SSS), POMS	99	1	HYDROXYZINE	25		NO
125	Walsh et al. (1992)	SEDATION - VAS	99	1	HYDROXYZINE	25	YES	
91	Peck et al. (1975)	SEDATION - VAS set of states	99	1	TRIPOLIDINE	1.25	YES	
21	Bye et al. (1974)	SEDATION - VAS	99	1	TRIPOLIDINE	2.5		NO
28	Cohen et al. (1985)	SEDATION - VAS	99	1	TRIPOLIDINE	2.5	YES	
48	Hamilton et al. (1982)	SEDATION - VAS	99	1	TRIPOLIDINE	2.5		NO
76	Nicholson (1979)	SEDATION - VAS	99	1	TRIPOLIDINE	2.5		NO

82	Nicholson & Stone (1986)	SEDATION - VAS	99	1	TRIPOLIDINE	2.5		NO
21	Bye et al. (1974)	SEDATION - VAS	99	1	TRIPOLIDINE	5	YES	
22	Bye et al. (1977)	SEDATION - VAS	99	1	TRIPOLIDINE	5	YES	
28	Cohen et al. (1985)	SEDATION - VAS	99	1	TRIPOLIDINE	5	YES	
82	Nicholson & Stone (1986)	SEDATION - VAS	99	1	TRIPOLIDINE	5		NO
83	Nicholson et al. (1991)	SEDATION - VAS, Stanford (SSS)	99	1	TRIPOLIDINE	5		NO
91	Peck et al. (1975)	SEDATION - VAS set of states	99	1	TRIPOLIDINE	5	YES	
121	Valk et al. (1997)	SEDATION - Stanford (SSS)	99	1	TRIPOLIDINE	5	YES	
123	Volkerts et al. (1992)	SEDATION - ~VAS (Interval scale)	99	1	TRIPOLIDINE	5		NO
117	Swire et al. (1989)	SEDATION - VAS set of states (Bond & Lader)	99	1	TRIPOLIDINE	7.5	YES	
12	Bradley & Nicholson (1986)	SEDATION - VAS Mood assessments	99	1	TRIPOLIDINE	10	YES	
14	Bradley & Nicholson (1987)	SEDATION - VAS Mood assessments	99	1	TRIPOLIDINE	10	YES	
15	Brookhuis et al. (1993)	SEDATION - mental activation (sed)	99	1	TRIPOLIDINE	10		NO
58	Kerr et al. (1994)	SEDATION - VAS	99	1	TRIPOLIDINE	10	YES	
76	Nicholson (1979)	SEDATION - VAS	99	1	TRIPOLIDINE	10		NO
77	Nicholson & Stone (1982)	SEDATION - VAS	99	1	TRIPOLIDINE	10	YES	
78	Nicholson et al. (1982)	SEDATION - VAS	99	1	TRIPOLIDINE	10		NO WP
79	Nicholson & Stone (1983)	SEDATION - VAS	99	1	TRIPOLIDINE	10	YES	
80	Nicholson & Stone (1984)	SEDATION - VAS	99	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	SEDATION - VAS	99	1	TRIPOLIDINE	10	YES	
104	Rombaut et al. (1991)	SEDATION - VAS set of states	99	1	TRIPOLIDINE	10	YES	
13A	Bradley et al. (1987)	SEDATION - VAS Mood assessments	99	1	TRIPOLIDINE	10	YES	
13B	Bradley et al. (1987)	SEDATION - VAS Mood assessments	99	1	TRIPOLIDINE	10	YES	

SEDATION - SUBJECTIVE MEASURES - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

cont'd... Sheet: SEDATION

SC#99 Page 2: sorted by Generation, DRUG, Dose, Ref#, Measure

Ref#	REFERENCE	MEASURE of Subjective Sedation	SC#	Gen	DRUG	Dose, mg	IMPAIRMENT?	
							YES	NO
2nd Generation Drugs:								
34	Dhorranintra et al. (1986)	SEDATION - VAS & Alertness rating	99	2	ASTEMIZOLE	10		NO
51	Hindmarch & Easton (1986)	SEDATION - VAS set (LARS)	99	2	ASTEMIZOLE	10		NO
77	Nicholson & Stone (1982)	SEDATION - VAS	99	2	ASTEMIZOLE	10		NO
78	Nicholson et al. (1982)	SEDATION - VAS	99	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	SEDATION - VAS series	99	2	ASTEMIZOLE	10		NO
114	Simons et al. (1996)	SEDATION - VAS based on SSS	99	2	ASTEMIZOLE	10		NO wB
77	Nicholson & Stone (1982)	SEDATION - VAS	99	2	ASTEMIZOLE	20		NO
113	Seppala & Savolainen (1982)	SEDATION - VAS series	99	2	ASTEMIZOLE	30		NO
25	Chapman & Rawlins (1982)	SEDATION - VAS	99	2	ASTEMIZOLE	40		NO
44	Gengo et al. (1990)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	5		NO
84	Nicholson & Turner (1998)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	5	YES	
111	Seidel et al. (1987)	SEDATION - VAS, Stanford (SSS), POMS	99	2	CETIRIZINE	5		NO
6	Betts et al. (1989)	SEDATION - VAS set	99	2	CETIRIZINE	10		NO
36	Doms et al. (1988)	SEDATION - VAS & ratings	99	2	CETIRIZINE	10		NO
43	Gengo et al. (1987)	SEDATION - VAS	99	2	CETIRIZINE	10		NO
44	Gengo et al. (1990)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	10		NO
65	Levander et al. (1991)	SEDATION - VAS; 3/7 sets = sedation	99	2	CETIRIZINE	10		NO
84	Nicholson & Turner (1998)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	10	YES	
89	Pechadre et al. (1988)	SEDATION - VAS	99	2	CETIRIZINE	10		NO
90	Pechadre et al. (1991)	SEDATION - VAS	99	2	CETIRIZINE	10		NO
95	Ramaekers et al. (1992)	SEDATION - VAS	99	2	CETIRIZINE	10		NO wP
110	Schweitzer et al. (1994)	SEDATION - VAS	99	2	CETIRIZINE	10		NO
111	Seidel et al. (1987)	SEDATION - VAS, Stanford (SSS), POMS	99	2	CETIRIZINE	10		NO
114	Simons et al. (1996)	SEDATION - VAS based on SSS	99	2	CETIRIZINE	10	YES	
123	Volkerts et al. (1992)	SEDATION - ~VAS (interval scale)	99	2	CETIRIZINE	10		NO
125	Walsh et al. (1992)	SEDATION - VAS	99	2	CETIRIZINE	10		NO wP
6	Betts et al. (1989)	SEDATION - VAS set	99	2	CETIRIZINE	20		NO
33	De Roeck et al. (1990)	SEDATION - Stanford Sleepiness Scale	99	2	CETIRIZINE	20		NO?
43	Gengo et al. (1987)	SEDATION - VAS	99	2	CETIRIZINE	20		NO
44	Gengo et al. (1990)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	20		NO
84	Nicholson & Turner (1998)	SEDATION - VAS, Stanford (SSS)	99	2	CETIRIZINE	20	YES	
111	Seidel et al. (1987)	SEDATION - VAS, Stanford (SSS), POMS	99	2	CETIRIZINE	20		NO
14	Bradley & Nicholson (1987)	SEDATION - VAS Mood assessments	99	2	LORATADINE	10		NO
37	Englisch et al. (1996)	SEDATION - VAS	99	2	LORATADINE	10		NO
42	Gaillard et al. (1988)	SEDATION - VAS scales	99	2	LORATADINE	10		NO
57	Kaye et al. (1997)	SEDATION - Stanford SSS, VAS, Moods	99	2	LORATADINE	10		NO
75	Neves-Pinto et al. (1992)	SEDATION - reported Sx per list	99	2	LORATADINE	10		NO
90	Pechadre et al. (1991)	SEDATION - VAS	99	2	LORATADINE	10		NO
95	Ramaekers et al. (1992)	SEDATION - VAS	99	2	LORATADINE	10		NO
109	Schaffler et al. (1994)	SEDATION - VAS; wakefulness	99	2	LORATADINE	10		NO
114	Simons et al. (1996)	SEDATION - VAS based on SSS	99	2	LORATADINE	10		NO wB
121	Valk et al. (1997)	SEDATION - Stanford (SSS)	99	2	LORATADINE	10		NO
127	Wilkinson & Moskowitz (1990)	SEDATION - POMS	99	2	LORATADINE	10		NO
133	Comer et al. (1998)	SEDATION - VAS lines in 50 set	99	2	LORATADINE	10		NO
14	Bradley & Nicholson (1987)	SEDATION - VAS Mood assessments	99	2	LORATADINE	20		NO
33	De Roeck et al. (1990)	SEDATION - Stanford Sleepiness Scale	99	2	LORATADINE	20		NO
133	Comer et al. (1998)	SEDATION - VAS lines in 50 set	99	2	LORATADINE	20		NO
14	Bradley & Nicholson (1987)	SEDATION - VAS Mood assessments	99	2	LORATADINE	40		NO
90	Pechadre et al. (1991)	SEDATION - VAS	99	2	LORATADINE	40		NO
6	Betts et al. (1989)	SEDATION - VAS set	99	2	TERFENADINE	60		NO
7	Bhatti & Hindmarch (1989)	SEDATION - VAS	99	2	TERFENADINE	60		NO
26	Ciarke & Nicholson (1978)	SEDATION - VAS	99	2	TERFENADINE	60		NO bP
39	Fink et al. (1979)	SEDATION - Alertness rating	99	2	TERFENADINE	60		NO
42	Gaillard et al. (1988)	SEDATION - VAS scales	99	2	TERFENADINE	60		NO
58	Kerr et al. (1994)	SEDATION - VAS	99	2	TERFENADINE	60		NO
61	Kulshreetha et al. (1978)	SEDATION - VAS for Sedation	99	2	TERFENADINE	60		NO
69	Meador et al. (1989)	SEDATION - reported occurrences	99	2	TERFENADINE	60		NO
71	Moser et al. (1978)	SEDATION - 9-pt VAS: tired, dull	99	2	TERFENADINE	60		NO
77	Nicholson & Stone (1982)	SEDATION - VAS	99	2	TERFENADINE	60		NO
78	Nicholson et al. (1982)	SEDATION - VAS	99	2	TERFENADINE	60		NO
79	Nicholson & Stone (1983)	SEDATION - VAS	99	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	SEDATION - VAS	99	2	TERFENADINE	60		NO
89	Pechadre et al. (1988)	SEDATION - VAS	99	2	TERFENADINE	60		NO
97	Reinberg et al. (1978)	SEDATION - (~VAS rectangle 22cm)	99	2	TERFENADINE	60		NO bP
114	Simons et al. (1996)	SEDATION - VAS based on SSS	99	2	TERFENADINE	60		NO wB
117	Swire et al. (1989)	SEDATION - VAS set of states (Bond & Lader)	99	2	TERFENADINE	60		NO
119	Tharion et al. (1994)	SEDATION - POMS, Sx Q	99	2	TERFENADINE	60		NO
120	Unchern et al. (1986)	SEDATION - 7-pt ratings & Sx report	99	2	TERFENADINE	60		NO
123	Volkerts et al. (1992)	SEDATION - ~VAS (interval scale)	99	2	TERFENADINE	60		NO

130A	Witek, Jr. et al. (1992)	SEDATION - VAS (PC), SSS	99	2	TERFENADINE	60	NO
131A	Witek, Jr. et al. (1995)	SEDATION - VAS (PC), SSS	99	2	TERFENADINE	60	NO
6	Betts et al. (1989)	SEDATION - VAS set	99	2	TERFENADINE	120	NO
7	Bhatti & Hindmarch (1989)	SEDATION - VAS	99	2	TERFENADINE	120	NO
71	Moser et al. (1978)	SEDATION - 9-pt VAS: tired, dull	99	2	TERFENADINE	120	NO
74	Murri et al. (1986)	SEDATION - Stanford (SSS)	99	2	TERFENADINE	120	NO
82	Nicholson & Stone (1986)	SEDATION - VAS	99	2	TERFENADINE	120	NO
123	Volkerts et al. (1992)	SEDATION - ~VAS (interval scale)	99	2	TERFENADINE	120	NO
7	Bhatti & Hindmarch (1989)	SEDATION - VAS	99	2	TERFENADINE	240	NO
71	Moser et al. (1978)	SEDATION - 9-pt VAS: tired, dull	99	2	TERFENADINE	240	NO

TABLE 5. DRIVING SC#1

DRIVING and PILOTING TASKS - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

sorted by Generation, Drug, Dose, Ref#, SC#

Ref#	REFERENCE	TASK (or Subjective SEDATION)	SC#	Task/DUR	Gen	DRUG	Dose, mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
8	Biehl (1979)	DRIVING SIMULATOR - very basic	1S	???	1	CHLORPHENIRAMINE	4	YES	
124	Vuurman et al. (1994)	DRIVING - Actual, Highway circuit	1R	~ 1hr	1	CLEMASTINE	2	YES	
122	Vermeeren & O'Hanlon (1998)	DRIVING - Actual, Highway circuit	1R	~ 1hr	1	CLEMASTINE	3	YES	
27	Cohen et al. (1984)	DRIVING - off-road, circuit	1C	15 min	1	DIPHENHYDRAMINE	25		NO
27	Cohen et al. (1984)	DRIVING - off-road, circuit	1C	15 min	1	DIPHENHYDRAMINE	50		NO
44	Gengo et al. (1990)	DRIVING SIMULATOR - Doron, 2 diff. runs	1S	7 min runs	1	DIPHENHYDRAMINE	50	YES	
96	Ramaekers et al. (1994)	DRIVING - Actual, Car following test	1R	12 min	1	DIPHENHYDRAMINE	50	YES	
96	Ramaekers et al. (1994)	DRIVING - Actual, Highway circuit	1R	~1hr	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	DRIVING - off-road, circuit	1C	15 min	1	DIPHENHYDRAMINE	100		NO
55	Irving & Jones (1992)	HAZARD PERCEPTION - Sim traffic scenes	1?	12 min?	1	TRIPOLIDINE	2.5		NO
55	Irving & Jones (1992)	SPEED PERCEPTION - Sim traffic scenes	1?	12 min	1	TRIPOLIDINE	2.5		NO
55	Irving & Jones (1992)	DRIVING - Actual, Closed course	1C	15 min	1	TRIPOLIDINE	2.5		NO
55	Irving & Jones (1992)	DRIVING - SIMULATOR	1S	15 min	1	TRIPOLIDINE	2.5		NO
55	Irving & Jones (1992)	SPEED PERCEPTION - Sim traffic scenes	1?	12 min	1	TRIPOLIDINE	5		NO
55	Irving & Jones (1992)	HAZARD PERCEPTION - Sim traffic scenes	1?	12 min?	1	TRIPOLIDINE	5		NO
55	Irving & Jones (1992)	DRIVING - Actual, Closed course	1C	15 min	1	TRIPOLIDINE	5		NO
55	Irving & Jones (1992)	DRIVING - SIMULATOR	1S	15 min	1	TRIPOLIDINE	5		NO
121	Valk et al. (1997)	Multi-Attribute Task Battery (MAT) - on PC	1S	10 min	1	TRIPOLIDINE	5	YES	
123	Volkerts et al. (1992)	DRIVING - Actual, Highway circuit	1R	75 min	1	TRIPOLIDINE	5	YES	
15	Brookhuis et al. (1993)	DRIVING - on road; weaving test	1R		1	TRIPOLIDINE	10		NO
15	Brookhuis et al. (1993)	DRIVING - on road; car-following test	1R		1	TRIPOLIDINE	10	YES	
86A	O'Hanlon et al. (1988)	DRIVING - Actual, Highway circuit	1R	1hr+?	1	TRIPOLIDINE	10	YES	
99A	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	1	TRIPOLIDINE	10	YES	
2nd Generation Drugs:									
44	Gengo et al. (1990)	DRIVING SIMULATOR - Doron, 2 diff. runs	1S	7 min runs	2	CETIRIZINE	5		NO
6	Betts et al. (1989)	DRIVING circuit - slalom & gap acceptance	1C		2	CETIRIZINE	10		NO
44	Gengo et al. (1990)	DRIVING SIMULATOR - Doron, 2 diff. runs	1S	7 min runs	2	CETIRIZINE	10		NO
95	Ramaekers et al. (1992)	DRIVING - Actual, Circuit on highway	1R	~1hr	2	CETIRIZINE	10	YES	
123	Volkerts et al. (1992)	DRIVING - Actual, Highway circuit	1R	75 min	2	CETIRIZINE	10		NO
6	Betts et al. (1989)	DRIVING circuit - slalom & gap acceptance	1C		2	CETIRIZINE	20	YES	
44	Gengo et al. (1990)	DRIVING SIMULATOR - Doron, 2 diff. runs	1S	7 min runs	2	CETIRIZINE	20		NO
122	Vermeeren & O'Hanlon (1998)	DRIVING - Actual, Highway circuit	1R	~ 1hr	2	FEXOFENADINE	120		NO
122	Vermeeren & O'Hanlon (1998)	DRIVING - Actual, Highway circuit	1R	~ 1hr	2	FEXOFENADINE	240		NO
75	Neves-Pinto et al. (1992)	FLIGHT SIMULATOR - observer ratings	1S		2	LORATADINE	10		NO
95	Ramaekers et al. (1992)	DRIVING - Actual, Circuit on highway	1R	~1hr	2	LORATADINE	10		NO
121	Valk et al. (1997)	Multi-Attribute Task Battery (MAT) - on PC	1S	10 min	2	LORATADINE	10		NO
86A	O'Hanlon et al. (1988)	DRIVING - Actual, Highway circuit	1R	1hr+?	2	LORATADINE	10		NO
99A	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	2	LORATADINE	10		NO
99B	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	2	LORATADINE	10		NO
99A	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	2	LORATADINE	20		NO
6	Betts et al. (1989)	DRIVING circuit - slalom & gap acceptance	1C		2	TERFENADINE	60		NO
7	Bhatti et al. (1989)	SIMULATED DRIVING TASK (SDT)	1S	?	2	TERFENADINE	60		NO
96	Ramaekers et al. (1994)	DRIVING - Actual, Highway circuit	1R	~1hr	2	TERFENADINE	60	YES	
96	Ramaekers et al. (1994)	DRIVING - Actual, Car following test	1R	12 min	2	TERFENADINE	60		NO
123	Volkerts et al. (1992)	DRIVING - Actual, Highway circuit	1R	75 min	2	TERFENADINE	60		NO
86A	O'Hanlon et al. (1988)	DRIVING - Actual, Highway circuit	1R	1hr+?	2	TERFENADINE	60		NO
99A	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	2	TERFENADINE	60		NO
6	Betts et al. (1989)	DRIVING circuit - slalom & gap acceptance	1C		2	TERFENADINE	120		NO
7	Bhatti et al. (1989)	SIMULATED DRIVING TASK (SDT)	1S	?	2	TERFENADINE	120		NO
96	Ramaekers et al. (1994)	DRIVING - Actual, Highway circuit	1R	~1hr	2	TERFENADINE	120		NO
96	Ramaekers et al. (1994)	DRIVING - Actual, Car following test	1R	12 min	2	TERFENADINE	120		NO
123	Volkerts et al. (1992)	DRIVING - Actual, Highway circuit	1R	75 min	2	TERFENADINE	120		NO
99B	Riedel et al. (1990)	DRIVING - Actual, Highway 100km circuit	1R	1 hr	2	TERFENADINE	120		NO
7	Bhatti et al. (1989)	SIMULATED DRIVING TASK (SDT)	1S	?	2	TERFENADINE	240	YES	
96	Ramaekers et al. (1994)	DRIVING - Actual, Highway circuit	1R	~1hr	2	TERFENADINE	240		NO
96	Ramaekers et al. (1994)	DRIVING - Actual, Car following test	1R	12 min	2	TERFENADINE	240		NO

YES:

Summary: 1st generation drugs: 47.83%
2nd generation drugs: 12.50%

Page 2: sorted by Generation, DRUG, Dose, Ref#, SC#.

Ref#	REFERENCE	TASK	SC#	Duration	Set	DRUG	Dose, mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
8	Biehl (1979)	FINGER TAPPING	2T	30sec	1	CHLORPHENIRAMINE	4	YES	
35	Dhorranintra et al. (1990)	Glass Bead Picking (percept-motor)	2D	brief	1	CHLORPHENIRAMINE	4		NO
40	Franks et al. (1978)	Vienna Determination Apparatus	2?		1	CHLORPHENIRAMINE	4	YES	
40	Franks et al. (1978)	STANDING STEADINESS	2B		1	CHLORPHENIRAMINE	4	YES	
40	Franks et al. (1978)	MANUAL DEXTERITY	2D		1	CHLORPHENIRAMINE	4		NO
120	Unchern et al. (1986)	Plug Board (put pins in holes)	2D	20 sec x2	1	CHLORPHENIRAMINE	4		NO
131B	Witek, Jr. et al. (1995)	Hand Steadiness (PC)	2B	v. brief	1	CHLORPHENIRAMINE	4		NO
63	Lee et al. (1988)	FINGER TAPPING	2T	v. brief	1	CHLORPHENIRAMINE	12	YES	
25	Chapman & Rawlins (1982)	Letter Cancellation	2	v. brief	1	CHLORPHENIRAMINE	16	YES	
59	Khosla et al. (1993)	Digit Cancellation Task (DCT)	2	v. brief	1	CHLORPHENIRAMINE	16		NO wB
31	Day et al. (1972)	HAND-EYE COORDINATION	2		1	CLEMASTINE	1		NO
41	Franks et al. (1979)	STANDING STEADINESS	2B		1	CLEMASTINE	1		NO
41	Franks et al. (1979)	MANUAL DEXTERITY	2D		1	CLEMASTINE	1		NO
97	Reinberg et al. (1978)	EYE-HAND SKILL Test (bearings in tube)	2D	v. brief	1	CLEMASTINE	1		NO
64	Levander et al. (1985)	FINGER TAPPING - index; alternating 2 fingers	2T	v. brief	1	CLEMASTINE	3	YES	
97	Reinberg et al. (1978)	EYE-HAND SKILL Test (bearings in tube)	2D	v. brief	1	CLEMASTINE	3		NO
27	Cohen et al. (1984)	BODY SWAY - antero-posterior	2B	3 min	1	DIPHENHYDRAMINE	25	YES	
30	Curran et al. (1998)	SYMBOL COPYING - motor comp of DSST	2	90 sec	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	DIGIT CANCELLATION	2	brief	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	FINGER TAPPING	2T	60 sec	1	DIPHENHYDRAMINE	25		NO
120	Unchern et al. (1986)	Plug Board (put pins in holes)	2D	20 sec x2	1	DIPHENHYDRAMINE	25		NO
131B	Witek, Jr. et al. (1995)	Hand Steadiness (PC)	2B	v. brief	1	DIPHENHYDRAMINE	25	YES	
4	Berlinger et al. (1982)	FINGER TAPPING	2T	2 min	1	DIPHENHYDRAMINE	50		NO
24	Caruthers et al. (1978)	FINGER TAPPING	2T	50 sec	1	DIPHENHYDRAMINE	50		NO
27	Cohen et al. (1984)	BODY SWAY - antero-posterior	2B	3 min	1	DIPHENHYDRAMINE	50	YES	
29	Cohen et al. (1987)	BODY SWAY - antero-posterior	2B	2 min	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	DIGIT CANCELLATION	2	brief	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	SYMBOL COPYING - motor comp of DSST	2	90 sec	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	FINGER TAPPING	2T	60 sec	1	DIPHENHYDRAMINE	50	YES	
56	Katz et al. (1998)	FINGER TAPPING	2T	brief	1	DIPHENHYDRAMINE	50		NO
116	Spector et al. (1980)	FINGER TAPPING - alternating area	2T	3.5min	1	DIPHENHYDRAMINE	50		NO
130A	Witek, Jr. et al. (1992)	Hand Steadiness (PC)	2B	v. brief	1	DIPHENHYDRAMINE	50	YES	
130B	Witek, Jr. et al. (1992)	Hand Steadiness (PC)	2B	v. brief	1	DIPHENHYDRAMINE	50	YES	
131A	Witek, Jr. et al. (1995)	Hand Steadiness (PC)	2B	v. brief	1	DIPHENHYDRAMINE	50	YES	
131B	Witek, Jr. et al. (1995)	Hand Steadiness (PC)	2B	v. brief	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	BODY SWAY - antero-posterior	2B	3 min	1	DIPHENHYDRAMINE	100	YES	
71	Moser et al. (1978)	PSYCHOMOTOR TASKS (set of 5)	2		1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	BALANCE - Time keep foot raised; eyes closed	2B	2 min	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	BODY SWAY	2B	v. brief	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	FINGER TAPPING	2T	1 min	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	BALANCE - Time keep foot raised; eyes closed	2B	2 min	1	DIPHENHYDRAMINE	200	YES	
64	Levander et al. (1985)	FINGER TAPPING - index; alternating 2 fingers	2T	v. brief	1	HYDROXYZINE	20	YES	
65	Levander et al. (1991)	FINGER TAPPING - index; alternating 2 fingers	2T	v. brief	1	HYDROXYZINE	20		NO
21	Bye et al. (1974)	FINGER TAPPING	2T	1 min	1	TRIPOLIDINE	2.5	YES	
48	Hamilton et al. (1982)	FINGER TAPPING	2T	60 sec	1	TRIPOLIDINE	2.5		NO
21	Bye et al. (1974)	FINGER TAPPING	2T	1 min	1	TRIPOLIDINE	5	YES	
22	Bye et al. (1977)	FINGER TAPPING	2T	60 sec	1	TRIPOLIDINE	5	YES	
78	Nicholson et al. (1982)	CANCELLATION Task - (P&P, letters)	2	5 min	1	TRIPOLIDINE	10		NO
80	Nicholson & Stone (1984)	SYMBOL COPYING - motor comp of DSST	2	1 min	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	SYMBOL COPYING - motor comp of DSST	2	1 min	1	TRIPOLIDINE	10	YES	
2nd Generation Drugs:									
34	Dhorranintra et al. (1986)	Glass Bead Picking (percept-motor)	2D	brief	2	ASTEMIZOLE	10		NO
78	Nicholson et al. (1982)	CANCELLATION Task - (P&P, letters)	2	5 min	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	BODY SWAY - lateral & sagittal; electronic.	2B	40 sec	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	FINGER TAPPING - hand counter	2T	30 sec	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	BODY SWAY - lateral & sagittal; electronic.	2B	40 sec	2	ASTEMIZOLE	30		NO
113	Seppala & Savolainen (1982)	FINGER TAPPING - hand counter	2T	30 sec	2	ASTEMIZOLE	30		NO
25	Chapman & Rawlins (1982)	Letter Cancellation	2	v. brief	2	ASTEMIZOLE	40		NO
36	Doms et al. (1988)	Bourdon Wiersma Test - p/p attention	2	5 min	2	CETIRIZINE	10		NO
36	Doms et al. (1988)	Crawford Small Parts Dexterity Test	2D	?	2	CETIRIZINE	10		NO
65	Levander et al. (1991)	FINGER TAPPING - index; alternating 2 fingers	2T	v. brief	2	CETIRIZINE	10		NO
71	Moser et al. (1978)	PSYCHOMOTOR TASKS (set of 5)	2		2	TERFENADINE	60		NO
78	Nicholson et al. (1982)	CANCELLATION Task - (P&P, letters)	2	5 min	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	SYMBOL COPYING - motor comp of DSST	2	1 min	2	TERFENADINE	60		NO
97	Reinberg et al. (1978)	EYE-HAND SKILL Test (bearings in tube)	2D	v. brief	2	TERFENADINE	60		NO
120	Unchern et al. (1986)	Plug Board (put pins in holes)	2D	20 sec x2	2	TERFENADINE	60		NO
130A	Witek, Jr. et al. (1992)	Hand Steadiness (PC)	2B	v. brief	2	TERFENADINE	60		NO
131A	Witek, Jr. et al. (1995)	Hand Steadiness (PC)	2B	v. brief	2	TERFENADINE	60		NO
71	Moser et al. (1978)	PSYCHOMOTOR TASKS (set of 5)	2		2	TERFENADINE	120		NO
82	Nicholson & Stone (1986)	SYMBOL COPYING - motor comp of DSST	2	1 min	2	TERFENADINE	120		NO
71	Moser et al. (1978)	PSYCHOMOTOR TASKS (set of 5)	2		2	TERFENADINE	240		NO

TABLE 7

PERCEPTION - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

Page 2: sorted by Generation, DRUG, Dose, Ref#, SC#.

Ref#	REFERENCE	TASK	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
8	Biehl (1979)	TACHISTOSCOPE - 4 slides of 16 ltrs	3	very brief	1	CHLORPHENIRAMINE	4		NO
40	Franks et al. (1978)	PERCEPTUAL SPEED	3		1	CHLORPHENIRAMINE	4		NO
41	Franks et al. (1979)	PERCEPTUAL SPEED	3		1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	TIME ANTICIPATION - Est speed of moving light	3?	v. brief	1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	VISUAL SEARCH - (they say "D-A"?)	3VS	5 min	1	CLEMASTINE	1		NO
56	Katz et al. (1998)	Pattern Recognition - spatial perception	3	brief	1	DIPHENHYDRAMINE	25		NO
18A	Burns & Moskowitz (1993)	VISUAL SEARCH - SCRI	3VS	6 min	1	DIPHENHYDRAMINE	25	YES	
18B	Burns & Moskowitz (1993)	VISUAL SEARCH - SCRI	3VS	6 min	1	DIPHENHYDRAMINE	25		NO
73	Moskowitz & Burns (1988)	VISUAL SEARCH - SCRI	3VS	6 min	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	Pattern Recognition - spatial perception	3?	brief	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	Pattern Recognition - spatial perception	3?	brief	1	DIPHENHYDRAMINE	75	YES	
70	Mohs et al. (1978)	TIME PRODUCTION Task (time estimates)	3	5-10 min	1	DIPHENHYDRAMINE	100	YES	
70	Mohs et al. (1978)	VISUAL SEARCH (t-scope, digits)	3VS	20 min	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	VISUAL SEARCH - (they say "D-A"?)	3VS	5 min	1	DIPHENHYDRAMINE	100		NO
21	Bye et al. (1974)	VISUAL SEARCH	3VS	30 min	1	TRIPOLIDINE	2.5		NO
21	Bye et al. (1974)	VISUAL SEARCH	3VS	30 min	1	TRIPOLIDINE	5		NO
123	Volkerts et al. (1992)	Visual Discrimination (Letter or Digit)	3	~10 min	1	TRIPOLIDINE	5	YES	
2nd Generation Drugs:									
113	Seppala & Savolainen (1982)	TIME ANTICIPATION - Est speed of moving light	3?	v. brief	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	TIME ANTICIPATION - Est speed of moving light	3?	v. brief	2	ASTEMIZOLE	30		NO
123	Volkerts et al. (1992)	Visual Discrimination (Letter or Digit)	3	~10 min	2	CETIRIZINE	10		NO
73	Moskowitz & Burns (1988)	VISUAL SEARCH - SCRI	3VS	6 min	2	TERFENADINE	60		NO bP
123	Volkerts et al. (1992)	Visual Discrimination (Letter or Digit)	3	~10 min	2	TERFENADINE	60		NO
18A	Burns & Moskowitz (1993)	VISUAL SEARCH - SCRI	3VS	6 min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	VISUAL SEARCH - SCRI	3VS	6 min	2	TERFENADINE	60		NO
123	Volkerts et al. (1992)	Visual Discrimination (Letter or Digit)	3	~10 min	2	TERFENADINE	120		NO
18B	Burns & Moskowitz (1993)	VISUAL SEARCH - SCRI	3VS	6 min	2	TERFENADINE	120		NO

VISUAL FUNCTIONS TABLE 8A.

Page 2: sorted by SC#, Generation, DRUG, Dose, Ref#

Ref#	REFERENCE	TASK (or Subjective SEDATION)	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
31	Day et al. (1972)	VISUAL FUNCTION TESTS (5 types)	4		1	CLEMASTINE	1		NO
29	Cohen et al. (1987)	SACCADIC EYE MOVEMENTS	4	~5 min?	1	DIPHENHYDRAMINE	50	YES	
29	Cohen et al. (1987)	SMOOTH PURSUIT EYE MOVEMENTS	4	~5 min?	1	DIPHENHYDRAMINE	50		NO
68	Mattila et al. (1986)	MADDOX WING (extraocular muscles)	4	v. brief	1	DIPHENHYDRAMINE	100		NO wB
106	Saarialho-Kere et al. (1989)	MADDOX WING (extraocular muscles)	4	v. brief	1	DIPHENHYDRAMINE	100		NO
9	Blom et al. (1992)	SACCADIC EYE MOVEMENT - SEM-K	4		1	HYDROXYZINE	30	YES	
12	Bradley & Nicholson (1986)	DYNAMIC VISUAL ACUITY	4	~5 min	1	TRIPOLIDINE	10	YES	
14	Bradley & Nicholson (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	1	TRIPOLIDINE	10	YES	
78	Nicholson et al. (1982)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	1	TRIPOLIDINE	10	YES	
78	Nicholson et al. (1982)	PUPILLARY DIAMETER (TV pupillometer)	4	v. brief	1	TRIPOLIDINE	10		NO
79	Nicholson & Stone (1983)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	1	TRIPOLIDINE	10	YES	
80	Nicholson & Stone (1984)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	1	TRIPOLIDINE	10	YES	
13A	Bradley et al. (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	1	TRIPOLIDINE	10	YES	
13B	Bradley et al. (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	1	TRIPOLIDINE	10	YES	
2nd Generation Drugs:									
78	Nicholson et al. (1982)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	2	ASTEMIZOLE	10		NO
78	Nicholson et al. (1982)	PUPILLARY DIAMETER (TV pupillometer)	4	v. brief	2	ASTEMIZOLE	10		NO
6	Betts et al. (1989)	VISION TEST (Visual field index)	4		2	CETIRIZINE	10		NO
6	Betts et al. (1989)	VISION TEST (Visual field index)	4		2	CETIRIZINE	20		NO
14	Bradley & Nicholson (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	2	LORATADINE	10		NO
37	Englisch et al. (1996)	VISUAL FUNCTIONS - in Oculodynamic test	4	20 min	2	LORATADINE	10		NO
109	Schaffler et al. (1994)	Oculodynamic Test (ODT)- EOG measures	4	20 min	2	LORATADINE	10		NO
14	Bradley & Nicholson (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	2	LORATADINE	20		NO
14	Bradley & Nicholson (1987)	DYNAMIC VISUAL ACUITY	4	~5 min	2	LORATADINE	40	YES	
6	Betts et al. (1989)	VISION TEST (Visual field index)	4		2	TERFENADINE	60		NO
78	Nicholson et al. (1982)	PUPILLARY DIAMETER (TV pupillometer)	4	v. brief	2	TERFENADINE	60		NO
78	Nicholson et al. (1982)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	2	TERFENADINE	60		NO
79	Nicholson & Stone (1983)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	2	TERFENADINE	60		NO
6	Betts et al. (1989)	VISION TEST (Visual field index)	4		2	TERFENADINE	120		NO
82	Nicholson & Stone (1986)	DYNAMIC VISUAL ACUITY - DVA (Landolt C rings)	4	v. brief	2	TERFENADINE	120		NO

continued...

CRITICAL FLICKER FUSION

TABLE 8B.

Page 2: sorted by SC#, Generation, DRUG, Dose, Ref#

Ref#	REFERENCE	TASK (or Subjective SEDATION)	SC#	Duration	Gen.	DRUG	Dose, mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
61	Kulshrestha et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CHLORPHENIRAMINE	4		NO
63	Lee et al. (1988)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CHLORPHENIRAMINE	12		NO
59	Khosla et al. (1993)	CRITICAL FLICKER FUSION (CFF)	4C	v. brief	1	CHLORPHENIRAMINE	16		NO wB
93	Pishkin et al. (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CLEMASTINE	1		NO
87	Patat et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CLEMASTINE	2	YES	
93	Pishkin et al. (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	CLEMASTINE	2		NO
124	Vuurman et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	6 min	1	CLEMASTINE	2	YES	
30	Curran et al. (1998)	CRITICAL FLICKER FUSION - CFF	4C	brief	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	CRITICAL FLICKER FUSION - CFF	4C	brief	1	DIPHENHYDRAMINE	50		NO
39	Fink et al. (1979)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	50		NO
93	Pishkin et al. (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	50		NO
119	Tharion et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	50		NO
68	Mattila et al. (1986)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	100	YES	
71	Moser et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	DIPHENHYDRAMINE	100	YES	
43	Gengo et al. (1987)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	HYDROXYZINE	25	YES	
93	Pishkin et al. (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	HYDROXYZINE	25		NO
9	Blom et al. (1992)	CRITICAL FLICKER FUSION	4C		1	HYDROXYZINE	30		NO
117	Swire et al. (1989)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	7.5	YES	
12	Bradley & Nicholson (1986)	CRITICAL FLICKER FUSION - CFF	4C	-5 min	1	TRIPOLIDINE	10	YES	
58	Kerr et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
78	Nicholson et al. (1982)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
79	Nicholson & Stone (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
80	Nicholson & Stone (1984)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
104	Rombaut et al. (1991)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	1	TRIPOLIDINE	10	YES	
13A	Bradley et al. (1987)	CRITICAL FLICKER FUSION - CFF	4C	-5 min	1	TRIPOLIDINE	10	YES	
13B	Bradley et al. (1987)	CRITICAL FLICKER FUSION - CFF	4C	-5 min	1	TRIPOLIDINE	10	YES	
2nd Generation Drugs:									
51	Hindmarch & Easton (1986)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	ASTEMIZOLE	10		NO
78	Nicholson et al. (1982)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	ASTEMIZOLE	10		NO
113	Seppala & Savolainen (1982)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	ASTEMIZOLE	30		NO
43	Gengo et al. (1987)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	CETIRIZINE	10		NO
100	Riedel et al. (1990)	CRITICAL FLICKER FUSION - CFF	4C		2	CETIRIZINE	10		NO
43	Gengo et al. (1987)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	CETIRIZINE	20		NO
100	Riedel et al. (1990)	CRITICAL FLICKER FUSION - CFF	4C		2	CETIRIZINE	20		NO
7	Bhatti & Hindmarch (1989)	CRITICAL FLICKER FUSION (CFF)	4C	very brief	2	TERFENADINE	60		NO
39	Fink et al. (1979)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
58	Kerr et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60	YES	
61	Kulshrestha et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
71	Moser et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
78	Nicholson et al. (1982)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
79	Nicholson & Stone (1983)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
117	Swire et al. (1989)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	60		NO
124	Vuurman et al. (1994)	CRITICAL FLICKER FUSION - CFF	4C	6 min	2	TERFENADINE	60		NO
7	Bhatti & Hindmarch (1989)	CRITICAL FLICKER FUSION (CFF)	4C	very brief	2	TERFENADINE	120		NO
71	Moser et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	120		NO
82	Nicholson & Stone (1986)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	120		NO
7	Bhatti & Hindmarch (1989)	CRITICAL FLICKER FUSION (CFF)	4C	very brief	2	TERFENADINE	240		NO
71	Moser et al. (1978)	CRITICAL FLICKER FUSION - CFF	4C	v. brief	2	TERFENADINE	240		NO

TABLE 9.

Ref#	REFERENCE	TASK (or Subjective SEDATION)	SC#	Duration	Gen	DRUG	Dose, mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
8	Biehl (1979)	CONCENTRATION TEST (KLT) - math	5	15 min	1	CHLORPHENIRAMINE	4		NO
35	Dhorranintra et al. (1990)	CARD SORTING test (CNS problem solving)	5	brief	1	CHLORPHENIRAMINE	4		NO
40	Franks et al. (1978)	NUMERICAL REASONING	5		1	CHLORPHENIRAMINE	4	YES	
120	Unchern et al. (1986)	Arithmetic (p&p ??)	5	v. brief	1	CHLORPHENIRAMINE	4		NO
120	Unchern et al. (1986)	Card Sorting Task (4 piles #1-10 each)	5	v. brief	1	CHLORPHENIRAMINE	4	YES	
120	Unchern et al. (1986)	Digit Span ("Recall Memory; F & Backward)	5M	v. brief	1	CHLORPHENIRAMINE	4		NO
120	Unchern et al. (1986)	Line Test (p&p: draw == tracking)	5T	30sec X2	1	CHLORPHENIRAMINE	4	YES	
120	Unchern et al. (1986)	T-Maze (p&p: draw == tracking)	5T	3 sec	1	CHLORPHENIRAMINE	4		NO bP
131B	Witek, Jr. et al. (1995)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	CHLORPHENIRAMINE	4		NO
83	Nicholson et al. (1991)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	CHLORPHENIRAMINE	10	YES	
63	Lee et al. (1988)	DSST (WAIS) & Symbol Copying (SCT)	5D	90 sec each	1	CHLORPHENIRAMINE	12		NO
63	Lee et al. (1988)	MEMORY - STM, words & delay recall	5M	brief	1	CHLORPHENIRAMINE	12		NO
59	Khosla et al. (1993)	Card Sorting Task (CST)	5	v. brief	1	CHLORPHENIRAMINE	16		NO
59	Khosla et al. (1993)	DIGIT SYMBOL Substitution - DSST	5D	v. brief	1	CHLORPHENIRAMINE	16		NO wB
41	Franks et al. (1979)	VERBAL FLUENCY	5		1	CLEMASTINE	1		NO
41	Franks et al. (1979)	NUMERICAL REASONING	5		1	CLEMASTINE	1		NO
91	Peck et al. (1975)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	CLEMASTINE	1	YES	
91	Peck et al. (1975)	MEMORY - STM, 8-digit series x90	5M	15 min	1	CLEMASTINE	1		NO
97	Reinberg et al. (1978)	Random# ADDITION TEST (P&P)	5	brief	1	CLEMASTINE	1		NO
53	Hopes et al. (1992)	Matching Paradigm - Info. Processing	5	10 min?	1	CLEMASTINE	2	YES	
87	Patat et al. (1994)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	CLEMASTINE	2		NO
87	Patat et al. (1994)	MEMORY tests - LTM, pictures & delay recall; STM, 15	5M	brief	1	CLEMASTINE	2		NO
91	Peck et al. (1975)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	CLEMASTINE	2	YES	
91	Peck et al. (1975)	MEMORY - STM, 8-digit series x90	5M	15 min	1	CLEMASTINE	2		NO
124	Vuurman et al. (1994)	MEMORY - letters, Sternberg CRT	5M	12 min	1	CLEMASTINE	2	YES	
64	Levander et al. (1985)	TRAIL MAKING - PC-based (~TrailsB)	5T	v. brief	1	CLEMASTINE	3		NO
97	Reinberg et al. (1978)	Random# ADDITION TEST (P&P)	5	brief	1	CLEMASTINE	3	YES	
16	Burns (1990)	VISUAL BACKWARD MASKING - SCRI	5	10+ min	1	DIPHENHYDRAMINE	25		NO
17	Burns & Moskowitz (1980)	VISUAL BACKWARD MASKING - SCRI	5	10+ min	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	WORD RECOGNITION (visual, during ERP)	5	~ 20 min?	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	MEMORY - immediate & delayed recall	5M	brief	1	DIPHENHYDRAMINE	25		NO
120	Unchern et al. (1986)	Arithmetic (p&p ??)	5	v. brief	1	DIPHENHYDRAMINE	25	YES	
120	Unchern et al. (1986)	Card Sorting Task (4 piles #1-10 each)	5	v. brief	1	DIPHENHYDRAMINE	25		NO
120	Unchern et al. (1986)	Digit Span ("Recall Memory; F & Backward)	5M	v. brief	1	DIPHENHYDRAMINE	25		NO
120	Unchern et al. (1986)	Line Test (p&p: draw == tracking)	5T	30sec X2	1	DIPHENHYDRAMINE	25	YES	
120	Unchern et al. (1986)	T-Maze (p&p: draw == tracking)	5T	3 sec	1	DIPHENHYDRAMINE	25	YES	
134	Scavone et al. (1998)	DIGIT SYMBOL Substitution - DSST	5D	?	1	DIPHENHYDRAMINE	25		NO
134	Scavone et al. (1998)	MEMORY - word list, acquisition & recall	5M	?	1	DIPHENHYDRAMINE	25		NO
131B	Witek, Jr. et al. (1995)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	DIPHENHYDRAMINE	25		NO
4	Berlinger et al. (1982)	CARD SORTING TEST B	5	very brief	1	DIPHENHYDRAMINE	50	YES	
4	Berlinger et al. (1982)	CARD SORTING TEST A	5	very brief	1	DIPHENHYDRAMINE	50		NO
19	Burns et al. (1994)	VISUAL BACKWARD MASKING - SCRI	5	10+ min	1	DIPHENHYDRAMINE	50		NO
19	Burns et al. (1994)	S-R CONFLICT (SRC) - SCRI	5	~10 min	1	DIPHENHYDRAMINE	50	YES	
24	Carruthers et al. (1978)	CARD SORTING tasks	5	v. brief	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	WORD RECOGNITION (visual, during ERP)	5	~ 20 min?	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	1	DIPHENHYDRAMINE	50		NO
30	Curran et al. (1998)	MEMORY - immediate & delayed recall	5M	brief	1	DIPHENHYDRAMINE	50		NO
44	Gengo et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	1	DIPHENHYDRAMINE	50	YES	
44	Gengo et al. (1990)	Trails B Maze Tracking - p/p test	5T	v. brief	1	DIPHENHYDRAMINE	50		NO
56	Katz et al. (1998)	DIGIT SYMBOL Substitution - DSST (WAIS-R)	5D	90 sec	1	DIPHENHYDRAMINE	50		NO
56	Katz et al. (1998)	MEMORY - Buschke task - word lists	5M	20 min	1	DIPHENHYDRAMINE	50		NO
56	Katz et al. (1998)	DIGIT SPAN - STM for verbal digits (WAIS-R)	5M	brief	1	DIPHENHYDRAMINE	50	YES	
56	Katz et al. (1998)	Trails A & B	5T	brief	1	DIPHENHYDRAMINE	50		NO
57	Kay et al. (1997)	DIGIT SYMBOL Coding - CogScreen	5D	brief	1	DIPHENHYDRAMINE	50		NO
57	Kay et al. (1997)	WORKING MEMORY - CogScreen	5M	brief	1	DIPHENHYDRAMINE	50	YES	
66	Lines et al. (1997)	DIGIT SYMBOL Substitution - DSST (~WAIS)	5D	90 sec	1	DIPHENHYDRAMINE	50		NO
66	Lines et al. (1997)	Verbal MEMORY; immed. & delay recall; PC	5M	brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Synder (1993)	Following Directions Test - CCAB	5	v. brief	1	DIPHENHYDRAMINE	50	YES	
98	Rice & Synder (1993)	Manikan - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Synder (1993)	Logical Reasoning - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Synder (1993)	Pattern Comparison - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50	YES	
98	Rice & Synder (1993)	Serial ADDITION/SUBTRACTION - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50	YES	
98	Rice & Synder (1993)	Interval Production - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Synder (1993)	Time Wall - WRPAB	5	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Synder (1993)	Code Substitution - WRPAB	5D	v. brief	1	DIPHENHYDRAMINE	50		NO
108	Sands et al. (1997)	DIGIT SYMBOL Substitution - DSST (WAIS-R)	5D	90 sec	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	DIGIT SPAN - STM for verbal digits (WAIS-R)	5M	brief	1	DIPHENHYDRAMINE	50		NO

108	Sands et al. (1997)	MEMORY - Buschke Task (word lists)	5M	20 min	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	Trails A & B	5T	brief	1	DIPHENHYDRAMINE	50	YES	
116	Spector et al. (1980)	CARD SORTING TESTS (A&B)	5	v. brief	1	DIPHENHYDRAMINE	50		NO
119	Tharion et al. (1994)	Baddeley Grammatical Reasoning (BGRT)	5	3 min	1	DIPHENHYDRAMINE	50		NO
119	Tharion et al. (1994)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	DIPHENHYDRAMINE	50		NO
130A	Witek, Jr. et al. (1992)	Grammatical Reasoning (PC)	5	v. brief	1	DIPHENHYDRAMINE	50		NO
130A	Witek, Jr. et al. (1992)	Arithmetic task (PC)	5	v. brief	1	DIPHENHYDRAMINE	50		NO
130B	Witek, Jr. et al. (1992)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	DIPHENHYDRAMINE	50		NO
131A	Witek, Jr. et al. (1995)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	DIPHENHYDRAMINE	50		NO
131B	Witek, Jr. et al. (1995)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	DIPHENHYDRAMINE	50		NO
108	Sands et al. (1997)	DIGIT SYMBOL Substitution - DSST (WAIS-R)	5D	90 sec	1	DIPHENHYDRAMINE	75	YES	
108	Sands et al. (1997)	DIGIT SPAN - STM for verbal digits (WAIS-R)	5M	brief	1	DIPHENHYDRAMINE	75		NO
108	Sands et al. (1997)	MEMORY - Buschke Task (word lists)	5M	20 min	1	DIPHENHYDRAMINE	75	YES	
108	Sands et al. (1997)	Trails A & B	5T	brief	1	DIPHENHYDRAMINE	75	YES	
68	Mattila et al. (1986)	DIGIT SYMBOL Substitution - DSST	5D	3 min	1	DIPHENHYDRAMINE	100	YES	
68	Mattila et al. (1986)	DIGIT SPAN (Backward, verbally)	5M	v. brief	1	DIPHENHYDRAMINE	100	YES	
94	Preston et al. (1992)	DIGIT SYMBOL Substitution - DSST (PC)	5D	v. brief	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	MEMORY - Picture Recog/Recall	5M	v. brief	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	Enter & Recall Test - Digits (PC)	5M	v. brief	1	DIPHENHYDRAMINE	100	YES	
106	Saarialho-Kere et al. (1989)	DIGIT SYMBOL Substitution - DSST	5D	3 min	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	DIGIT SYMBOL Substitution - DSST (PC)	5D	v. brief	1	DIPHENHYDRAMINE	200	YES	
94	Preston et al. (1992)	MEMORY - Picture Recog/Recall	5M	v. brief	1	DIPHENHYDRAMINE	200	YES	
94	Preston et al. (1992)	Enter & Recall Test - Digits (PC)	5M	v. brief	1	DIPHENHYDRAMINE	200	YES	
64	Levander et al. (1985)	TRAIL MAKING - PC-based (~TrailsB)	5T	v. brief	1	HYDROXYZINE	20		NO
65	Levander et al. (1991)	Perceptual MAZE Test - PC-based	5	v. brief	1	HYDROXYZINE	20		NO
43	Gengo et al. (1987)	Stroop color/word test - PC version	5	brief	1	HYDROXYZINE	25	YES	
9	Blom et al. (1992)	STERNBERG MEMORY & CRT - SRT-C	5M		1	HYDROXYZINE	30		NO
21	Bye et al. (1974)	DIGIT SYMBOL Substitution (DSST)	5D	90 sec	1	TRIPOLIDINE	2.5		NO
48	Hamilton et al. (1982)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	1	TRIPOLIDINE	2.5		NO
82	Nicholson & Stone (1986)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	2.5		NO
91	Peck et al. (1975)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	TRIPOLIDINE	2.5		NO
91	Peck et al. (1975)	MEMORY - STM, 8-digit series x90	5M	15 min	1	TRIPOLIDINE	2.5		NO
21	Bye et al. (1974)	DIGIT SYMBOL Substitution (DSST)	5D	90 sec	1	TRIPOLIDINE	5		NO
22	Bye et al. (1977)	DIGIT SYMBOL Substitution (DSST)	5D	90 sec	1	TRIPOLIDINE	5	YES	
22	Bye et al. (1977)	MEMORY - STM for 8-digit numbers	5M	15 min	1	TRIPOLIDINE	5	YES	
82	Nicholson & Stone (1986)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	5		NO
83	Nicholson et al. (1991)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	5		NO
91	Peck et al. (1975)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	TRIPOLIDINE	5	YES	
91	Peck et al. (1975)	MEMORY - STM, 8-digit series x90	5M	15 min	1	TRIPOLIDINE	5		NO
123	Volkerts et al. (1992)	Letter Matching Task	5	~10 min	1	TRIPOLIDINE	5		NO wP
123	Volkerts et al. (1992)	MEMORY - Digit Scanning (Sternberg)	5M	~13 min	1	TRIPOLIDINE	5	YES	
117	Swire et al. (1989)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	1	TRIPOLIDINE	7.5	YES	
117	Swire et al. (1989)	DIGIT SPAN - STM for verbal digits (WAIS)	5M	v. brief	1	TRIPOLIDINE	7.5		NO
12	Bradley & Nicholson (1986)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	~5 min	1	TRIPOLIDINE	10		NO
14	Bradley & Nicholson (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	~5 min	1	TRIPOLIDINE	10	YES	
14	Bradley & Nicholson (1987)	MEMORY - STM - digits visually	5M	8 min	1	TRIPOLIDINE	10	YES	
58	Kerr et al. (1994)	Stroop task - color/word (PC-based)	5	?	1	TRIPOLIDINE	10		NO
58	Kerr et al. (1994)	Sternberg STM - MEMORY, digits visual (PC-based)	5M	v. brief	1	TRIPOLIDINE	10		NO
77	Nicholson & Stone (1982)	ARITHMETIC Test (p&p)	5	10 min	1	TRIPOLIDINE	10		NO
77	Nicholson & Stone (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	10		NO
78	Nicholson et al. (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	10		NO
79	Nicholson & Stone (1983)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	10	YES	
80	Nicholson & Stone (1984)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	DIGIT SYMBOL Substitution - DSST	5D	2 min	1	TRIPOLIDINE	10	YES	
104	Rombaut et al. (1991)	MEMORY - Word recognition (PC)	5M	v. brief	1	TRIPOLIDINE	10		NO
104	Rombaut et al. (1991)	MEMORY - STM, Sternberg (PC)	5M	v. brief	1	TRIPOLIDINE	10	YES	
13A	Bradley et al. (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	~5 min	1	TRIPOLIDINE	10	YES	
13B	Bradley et al. (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	~5 min	1	TRIPOLIDINE	10	YES	

				2nd Generation Drugs:				
34	Dhorranintra et al. (1986)	CARD SORTING test (CNS problem solving)	5	brief	2	ASTEMIZOLE	10	NO
51	Hindmarch & Easton (1986)	Stroop task - color/word (PC-based)	5		2	ASTEMIZOLE	10	NO
77	Nicholson & Stone (1982)	ARITHMETIC Test (p&p)	5	10 min	2	ASTEMIZOLE	10	NO
77	Nicholson & Stone (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	ASTEMIZOLE	10	NO
78	Nicholson et al. (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Logical Reasoning - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Manikan - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Interval Production - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Serial ADDITION/SUBTRACTION - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Following Directions Test - CCAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Time Wall - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Pattern Comparison - WRPAB	5	v. brief	2	ASTEMIZOLE	10	NO
98	Rice & Synder (1993)	Code Substitution - WRPAB	5D	v. brief	2	ASTEMIZOLE	10	NO
113	Seppala & Savolainen (1982)	DIGIT SYMBOL Substitution - DSST	5D	3 min	2	ASTEMIZOLE	10	NO
77	Nicholson & Stone (1982)	ARITHMETIC Test (p&p)	5	10 min	2	ASTEMIZOLE	20	NO
77	Nicholson & Stone (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	ASTEMIZOLE	20	NO
113	Seppala & Savolainen (1982)	DIGIT SYMBOL Substitution - DSST	5D	3 min	2	ASTEMIZOLE	30	NO
44	Gengo et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	2	CETIRIZINE	5	NO
44	Gengo et al. (1990)	Trails B Maze Tracking - p/p test	5T	v. brief	2	CETIRIZINE	5	NO
84	Nicholson & Turner (1998)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	CETIRIZINE	5	NO
36	Doms et al. (1988)	Attention & concen. test - p/p	5	?	2	CETIRIZINE	10	NO
36	Doms et al. (1988)	Fieldmarking test - p/p concentration	5	10 min?	2	CETIRIZINE	10	NO
36	Doms et al. (1988)	Learning & memory test - p/p	5M	?	2	CETIRIZINE	10	NO
43	Gengo et al. (1987)	Stroop color/word test - PC version	5	brief	2	CETIRIZINE	10	NO
44	Gengo et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	2	CETIRIZINE	10	NO
44	Gengo et al. (1990)	Trails B Maze Tracking - p/p test	5T	v. brief	2	CETIRIZINE	10	NO
65	Levander et al. (1991)	Perceptual MAZE Test - PC-based	5	v. brief	2	CETIRIZINE	10	NO
84	Nicholson & Turner (1998)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	CETIRIZINE	10	NO
100	Riedel et al. (1990)	MEMORY - 15 words	5M		2	CETIRIZINE	10	NO
123	Volkerts et al. (1992)	Letter Matching Task	5	-10 min	2	CETIRIZINE	10	NO
123	Volkerts et al. (1992)	MEMORY - Digit Scanning (Sternberg)	5M	-13 min	2	CETIRIZINE	10	NO
33	De Roeck et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec?	2	CETIRIZINE	20	NO?
43	Gengo et al. (1987)	Stroop color/word test - PC version	5	brief	2	CETIRIZINE	20	NO
44	Gengo et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec	2	CETIRIZINE	20	YES
44	Gengo et al. (1990)	Trails B Maze Tracking - p/p test	5T	v. brief	2	CETIRIZINE	20	NO
84	Nicholson & Turner (1998)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	CETIRIZINE	20	NO
100	Riedel et al. (1990)	MEMORY - 15 words	5M		2	CETIRIZINE	20	NO
14	Bradley & Nicholson (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	-5 min	2	LORATADINE	10	NO
14	Bradley & Nicholson (1987)	MEMORY - STM - digits visually	5M	8 min	2	LORATADINE	10	NO
57	Kay et al. (1997)	DIGIT SYMBOL Coding - CogScreen	5D	brief	2	LORATADINE	10	NO
57	Kay et al. (1997)	WORKING MEMORY - CogScreen	5M	brief	2	LORATADINE	10	NO
133	Comer et al. (1998)	Repeated Acquisition & Rapid Info Tasks	5	3, 10min	2	LORATADINE	10	NO
133	Comer et al. (1998)	DIGIT SYMBOL Substitution - DSST	5D	3 min	2	LORATADINE	10	NO
14	Bradley & Nicholson (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	-5 min	2	LORATADINE	20	NO
14	Bradley & Nicholson (1987)	MEMORY - STM - digits visually	5M	8 min	2	LORATADINE	20	NO
33	De Roeck et al. (1990)	DIGIT SYMBOL Substitution - DSST	5D	90 sec?	2	LORATADINE	20	NO
133	Comer et al. (1998)	Repeated Acquisition & Rapid Info Tasks	5	3, 10min	2	LORATADINE	20	NO
133	Comer et al. (1998)	DIGIT SYMBOL Substitution - DSST	5D	3 min	2	LORATADINE	20	NO
14	Bradley & Nicholson (1987)	DIGIT SYMBOL SUBSTITUTION - DSS	5D	-5 min	2	LORATADINE	40	YES
14	Bradley & Nicholson (1987)	MEMORY - STM - digits visually	5M	8 min	2	LORATADINE	40	NO
58	Kerr et al. (1994)	Stroop task - color/word (PC-based)	5	?	2	TERFENADINE	60	NO
58	Kerr et al. (1994)	Sternberg STM - MEMORY, digits visual (PC-based)	5M	v. brief	2	TERFENADINE	60	NO
77	Nicholson & Stone (1982)	ARITHMETIC Test (p&p)	5	10 min	2	TERFENADINE	60	NO
77	Nicholson & Stone (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	60	NO
78	Nicholson et al. (1982)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	60	NO
79	Nicholson & Stone (1983)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	60	NO
82	Nicholson & Stone (1986)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	60	NO
97	Reinberg et al. (1978)	Random# ADDITION TEST (P&P)	5	brief	2	TERFENADINE	60	NO
117	Swire et al. (1989)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	2	TERFENADINE	60	NO
117	Swire et al. (1989)	DIGIT SPAN - STM for verbal digits (WAIS)	5M	v. brief	2	TERFENADINE	60	NO
119	Tharion et al. (1994)	Baddeley Grammatical Reasoning (BGRT)	5	3 min	2	TERFENADINE	60	NO
119	Tharion et al. (1994)	DIGIT SYMBOL Substitution - DSST (WAIS)	5D	90 sec	2	TERFENADINE	60	NO
120	Unchern et al. (1986)	Card Sorting Task (4 piles #1-10 each)	5	v. brief	2	TERFENADINE	60	NO
120	Unchern et al. (1986)	Arithmetic (p&p ??)	5	v. brief	2	TERFENADINE	60	NO
120	Unchern et al. (1986)	Digit Span ("Recall Memory; F & Backward)	5M	v. brief	2	TERFENADINE	60	NO
120	Unchern et al. (1986)	Line Test (p&p: draw == tracking)	5T	30sec X2	2	TERFENADINE	60	NO
120	Unchern et al. (1986)	T-Maze (p&p: draw == tracking)	5T	3 sec	2	TERFENADINE	60	NO
123	Volkerts et al. (1992)	Letter Matching Task	5	-10 min	2	TERFENADINE	60	NO
123	Volkerts et al. (1992)	MEMORY - Digit Scanning (Sternberg)	5M	-13 min	2	TERFENADINE	60	NO
130A	Witek, Jr. et al. (1992)	Arithmetic task (PC)	5	v. brief	2	TERFENADINE	60	NO
130A	Witek, Jr. et al. (1992)	Grammatical Reasoning (PC)	5	v. brief	2	TERFENADINE	60	NO
131A	Witek, Jr. et al. (1995)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	60	NO
82	Nicholson & Stone (1986)	DIGIT SYMBOL Substitution - DSST	5D	2 min	2	TERFENADINE	120	NO
123	Volkerts et al. (1992)	Letter Matching Task	5	-10 min	2	TERFENADINE	120	NO
123	Volkerts et al. (1992)	MEMORY - Digit Scanning (Sternberg)	5M	-13 min	2	TERFENADINE	120	NO

TABLE 10.

Ref#	REFERENCE	TASK	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
132	Yasuda et al. (1998)	DIVIDED ATTENTION (PC)	6	v brief	1	CHLORPHENIRAMINE	2	YES	
132	Yasuda et al. (1998)	DIVIDED ATTENTION (PC)	6	v brief	1	CHLORPHENIRAMINE	4	YES	
131B	Witek, Jr. et al. (1995)	DIVIDED ATTENTION (PC)	6	v. brief	1	CHLORPHENIRAMINE	4		NO
42	Gaillard et al. (1988)	TRACKING + Continuous Memory Task	6	7 min	1	CLEMASTINE	1	YES	
42	Gaillard et al. (1988)	Continuous MEMORY TASK during Tracking	6	7 min	1	CLEMASTINE	1		NO
124	Vuurman et al. (1994)	DIVIDED ATTENTION - SCRI	6	12 min	1	CLEMASTINE	2	YES	
16	Burns (1990)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	25		NO
17	Burns & Moskowitz (1980)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	25	YES	
131B	Witek, Jr. et al. (1995)	DIVIDED ATTENTION (PC)	6	v. brief	1	DIPHENHYDRAMINE	25	YES	
18A	Burns & Moskowitz (1993)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	25		NO?
18B	Burns & Moskowitz (1993)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	25	YES	
19	Burns et al. (1994)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	50	YES	
20	Burns et al. (1999 - ms)	DIVIDED ATTENTION - SCRI ('96 ver)	6	12 min	1	DIPHENHYDRAMINE	50		NO
57	Kay et al. (1997)	DIVIDED ATTENTION - CogScreen	6	brief	1	DIPHENHYDRAMINE	50	YES	
73	Moskowitz & Burns (1988)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	50	YES	
102	Roehrs et al. (1993)	DIVIDED ATTENTION - Trk & periph/center targets	6	15 min	1	DIPHENHYDRAMINE	50	YES	
127	Wilkinson & Moskowitz (1990)	DIVIDED ATTENTION - SCRI	6	12 min	1	DIPHENHYDRAMINE	50	YES	
129	Wilkinson et al. (1999 - ms)	DIVIDED ATTENTION - SCRI ('96ver)	6	12 min	1	DIPHENHYDRAMINE	50	YES	
130B	Witek, Jr. et al. (1992)	DIVIDED ATTENTION (PC)	6	v. brief	1	DIPHENHYDRAMINE	50	YES	
131A	Witek, Jr. et al. (1995)	DIVIDED ATTENTION (PC)	6	v. brief	1	DIPHENHYDRAMINE	50	YES	
131B	Witek, Jr. et al. (1995)	DIVIDED ATTENTION (PC)	6	v. brief	1	DIPHENHYDRAMINE	50	YES	
70	Mohs et al. (1978)	DIVIDED ATTENTION (digit transf & ltr detect; not PC)	6	15 min	1	DIPHENHYDRAMINE	100		NO
106	Saarialho-Kere et al. (1989)	TRACKING & CRT test (this is D-A)	6	?	1	DIPHENHYDRAMINE	100	YES	
111	Seidel et al. (1987)	D-A ("VIG": Trk & periph vs ctr targets)	6	30 min	1	HYDROXYZINE	25	YES	
55	Irving & Jones (1992)	DIVIDED ATTENTION - per SCRI	6	12 min	1	TRIPOLIDINE	2.5		NO
55	Irving & Jones (1992)	DIVIDED ATTENTION - per SCRI	6	12 min	1	TRIPOLIDINE	5		NO
121	Valk et al. (1997)	VigTrack - "dual-task" (palmtop PC)	6	5 min	1	TRIPOLIDINE	5	YES	
58	Kerr et al. (1994)	TRACKING with D-A task	6	1 min	1	TRIPOLIDINE	10	YES	
104	Rombaut et al. (1991)	DIVIDED ATTENTION - Trk & peripheral signals	6	1 min	1	TRIPOLIDINE	10		NO
2nd Generation Drugs:									
51	Hindmarch & Easton (1986)	TRACKING & Peripheral Signals Task	6	1 min	2	ASTEMIZOLE	10		NO
111	Seidel et al. (1987)	D-A ("VIG": Trk & periph vs ctr targets)	6	30 min	2	CETIRIZINE	5		NO
95	Ramaekers et al. (1992)	DIVIDED ATTENTION - per SCRI	6	12 min	2	CETIRIZINE	10	YES	
100	Riedel et al. (1990)	DIVIDED ATTENTION	6		2	CETIRIZINE	10		NO
111	Seidel et al. (1987)	D-A ("VIG": Trk & periph vs ctr targets)	6	30 min	2	CETIRIZINE	10		NO
100	Riedel et al. (1990)	DIVIDED ATTENTION	6		2	CETIRIZINE	20		NO
111	Seidel et al. (1987)	D-A ("VIG": Trk & periph vs ctr targets)	6	30 min	2	CETIRIZINE	20		NO
42	Gaillard et al. (1988)	TRACKING + Continuous Memory Task	6	7 min	2	LORATADINE	10		NO
42	Gaillard et al. (1988)	Continuous MEMORY TASK during Tracking	6	7 min	2	LORATADINE	10	YES	
57	Kay et al. (1997)	DIVIDED ATTENTION - CogScreen	6	brief	2	LORATADINE	10		NO bP
95	Ramaekers et al. (1992)	DIVIDED ATTENTION - per SCRI	6	12 min	2	LORATADINE	10		NO
121	Valk et al. (1997)	VigTrack - "dual-task" (palmtop PC)	6	5 min	2	LORATADINE	10		NO
127	Wilkinson & Moskowitz (1990)	DIVIDED ATTENTION - SCRI	6	12 min	2	LORATADINE	10		NO
133	Comer et al. (1998)	DIVIDED ATTENTION - Miller et al '88	6	10 min	2	LORATADINE	10		NO
133	Comer et al. (1998)	DIVIDED ATTENTION - Miller et al '88	6	10 min	2	LORATADINE	20		NO
42	Gaillard et al. (1988)	Continuous MEMORY TASK during Tracking	6	7 min	2	TERFENADINE	60	YES	
42	Gaillard et al. (1988)	TRACKING + Continuous Memory Task	6	7 min	2	TERFENADINE	60		NO
58	Kerr et al. (1994)	TRACKING with D-A task	6	1 min	2	TERFENADINE	60		NO
73	Moskowitz & Burns (1988)	DIVIDED ATTENTION - SCRI	6	12 min	2	TERFENADINE	60		NO bP
131A	Witek, Jr. et al. (1995)	DIVIDED ATTENTION (PC)	6	v. brief	2	TERFENADINE	60		NO
18A	Burns & Moskowitz (1993)	DIVIDED ATTENTION - SCRI	6	12 min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	DIVIDED ATTENTION - SCRI	6	12 min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	DIVIDED ATTENTION - SCRI	6	12 min	2	TERFENADINE	120		NO

Note: NO bP = NO significant impairment, and performance was better than Placebo.
 PC = Task presented on computerized system

Sheet: VIGTABLE 11 - VIGILANCE TASKS - Summary of Impairment findings as a function of DRUG and Dose - ACUTE DOSING only

page 2: sorted by Generation, DRUG, Dose, Ref#, SC#

Ref#	REFERENCE	TASK	SC#	Duration	Gen	DRUG	Dose, mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
91	Peck et al. (1975)	VIGILANCE - Auditory (Wilkinson RT; 1hr)	7	1 hr	1	CLEMASTINE	1	YES	
91	Peck et al. (1975)	VIGILANCE - Auditory (Wilkinson RT; 1hr)	7	1 hr	1	CLEMASTINE	2	YES	
124	Vuurman et al. (1994)	VIGILANCE - Sustained Attention, Vis.	7?	11 min	1	CLEMASTINE	2		NO
122	Vermeeren et al. (1998)	VIGILANCE - Sustained Attention - ~Scri (45min)	7	45 min	1	CLEMASTINE	3		NO wP
16	Burns (1990)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	25	YES	
38	Fine et al. (1994)	VIGILANCE - Visual, 2-hr (10min blks x12)	7	2 hr	1	DIPHENHYDRAMINE	25	YES	
18A	Burns & Moskowitz (1993)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	25	YES	
18B	Burns & Moskowitz (1993)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	25	YES	
19	Burns et al. (1994)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	50	YES	
20	Burns et al. (1999 - ms)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	50	YES	
39	Fink et al. (1979)	Continuous Perf Task (CPT) during EEG	7		1	DIPHENHYDRAMINE	50	YES	
56	Katz et al. (1998)	Continuous Performance Task (vig?)	7	brief	1	DIPHENHYDRAMINE	50	YES	
57	Kay et al. (1997)	Continuous Perf. Task - Kay G	7	5 min	1	DIPHENHYDRAMINE	50	YES	
66	Lines et al. (1997)	VIGILANCE - Sustained Attention, Vis.	7	10 min	1	DIPHENHYDRAMINE	50	YES	
66	Lines et al. (1997)	VIGILANCE - Sustained Attention, Aud.	7	~10min x2	1	DIPHENHYDRAMINE	50		NO
73	Moskowitz & Burns (1988)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	Continuous Performance Task (vig?)	7	brief	1	DIPHENHYDRAMINE	50	YES	
110	Schweitzer et al. (1994)	Simulated Assembly Line Task - SALT (PC)	7	1 hr	1	DIPHENHYDRAMINE	50	YES	
126	Walsh et al. (1994)	Simulated Assembly Line Task - SALT (PC)	7	1 hr x4	1	DIPHENHYDRAMINE	50	YES	
127	Wilkinson & Moskowitz (1990)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	50	YES	
129	Wilkinson et al. (1999 - ms)	VIGILANCE - SCRI	7	40 min	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	Continuous Performance Task (vig?)	7	brief	1	DIPHENHYDRAMINE	75	YES	
68	Mattila et al. (1986)	ATTENTION Test (concentrated attn?)	7?	5 min	1	DIPHENHYDRAMINE	100		NO wB
125	Walsh et al. (1992)	Simulated Assembly Line Task - SALT (PC)	7	50 min x8	1	HYDROXYZINE	25	YES	
21	Bye et al. (1974)	VIGILANCE - Auditory	7	1 hr	1	TRIPOLIDINE	2.5	YES	
91	Peck et al. (1975)	VIGILANCE - Auditory (Wilkinson RT; 1hr)	7	1 hr	1	TRIPOLIDINE	2.5	YES	
21	Bye et al. (1974)	VIGILANCE - Auditory	7	1 hr	1	TRIPOLIDINE	5	YES	
22	Bye et al. (1977)	VIGILANCE - Auditory	7	1 hr	1	TRIPOLIDINE	5	YES	
91	Peck et al. (1975)	VIGILANCE - Auditory (Wilkinson RT; 1hr)	7	1 hr	1	TRIPOLIDINE	5	YES	
2nd Generation Drugs:									
84	Nicholson et al. (1998)	VIGILANCE - Visual digits, 15min	7	15 min	2	CETIRIZINE	5		NO
84	Nicholson et al. (1998)	VIGILANCE - Visual digits, 15min	7	15 min	2	CETIRIZINE	10		NO
100	Riedel et al. (1990)	VIGILANCE	7		2	CETIRIZINE	10		NO
110	Schweitzer et al. (1994)	Simulated Assembly Line Task - SALT (PC)	7	1 hr	2	CETIRIZINE	10		NO
125	Walsh et al. (1992)	Simulated Assembly Line Task - SALT (PC)	7	50 min x8	2	CETIRIZINE	10		NO?1x
126	Walsh et al. (1994)	Simulated Assembly Line Task - SALT (PC)	7	1 hr x4	2	CETIRIZINE	10		NO
84	Nicholson et al. (1998)	VIGILANCE - Visual digits, 15min	7	15 min	2	CETIRIZINE	20		NO
100	Riedel et al. (1990)	VIGILANCE	7		2	CETIRIZINE	20		NO
122	Vermeeren et al. (1998)	VIGILANCE - Sustained Attention - ~Scri (45min)	7	45 min	2	FEXOFENADINE	120		NO
122	Vermeeren et al. (1998)	VIGILANCE - Sustained Attention - ~Scri (45min)	7	45 min	2	FEXOFENADINE	240		NO
57	Kay et al. (1997)	Continuous Perf. Task - Kay G	7	5 min	2	LORATADINE	10		NO
127	Wilkinson & Moskowitz (1990)	VIGILANCE - SCRI	7	40 min	2	LORATADINE	10		NO
39	Fink et al. (1979)	Continuous Perf Task (CPT) during EEG	7		2	TERFENADINE	60		NO
73	Moskowitz & Burns (1988)	VIGILANCE - SCRI	7	40 min	2	TERFENADINE	60		NO bP
18A	Burns & Moskowitz (1993)	VIGILANCE - SCRI	7	40 min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	VIGILANCE - SCRI	7	40 min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	VIGILANCE - SCRI	7	40 min	2	TERFENADINE	120		NO

Note: NO wP = NO significant impairment, but worse than Placebo.
 NO wB = NO significant impairment, but worse than Baseline.
 NO bP = NO significant impairment, and better than Placebo.
 NO? 1x = only one measure at single time point, of many, was significantly impaired.
 PC = Task presented on computerized system.
 RT = Reaction Time

TRACKING TASKS - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

sheet: TRACK
SC# 8, 8Cr

TABLE 12.

Page 2: sorted by Generation, DRUG, Dose, Ref#, SC#

Ref#	REFERENCE	TASK (or Subjective SEDATION)	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
26	Clarke & Nicholson (1978)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	CHLORPHENIRAMINE	4	YES	
61	Kulshrestha et al. (1978)	PURSUIT ROTOR - (Tracking)	8	brief	1	CHLORPHENIRAMINE	4		NO
76	Nicholson (1979)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	CHLORPHENIRAMINE	4		NO
26	Clarke & Nicholson (1978)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	CLEMASTINE	1	YES	
42	Gaillard et al. (1988)	TRACKING - Pursuit; performed alone	8	7 min	1	CLEMASTINE	1	YES	
93	Pishkin et al. (1983)	PURSUIT ROTOR - (Tracking)	8	v. brief	1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	TRACKING Task (steer black dot on trk)	8	30 sec	1	CLEMASTINE	1		NO
53	Hopes et al. (1992)	TRACKING - Rotor & Pursuit tasks	8	10 min ea?	1	CLEMASTINE	2	YES	
93	Pishkin et al. (1983)	PURSUIT ROTOR - (Tracking)	8	v. brief	1	CLEMASTINE	2		NO
124	Vuurman et al. (1994)	CRITICAL TRACKING (CTT) - ~SRI (5 trials)	8Cr	5 min	1	CLEMASTINE	2	YES	
64	Levander et al. (1985)	TRACKING, Adaptive (~VMC per Nicholson)	8Cr	8 min	1	CLEMASTINE	3	YES	
122	Vermeeren et al. (1998)	CRITICAL TRACKING (CTT) - ~SRI (5 trials)	8Cr	v. brief	1	CLEMASTINE	3	YES	
16	Burns (1990)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	25	YES	
17	Burns & Moskowitz (1980)	COMPENSATORY TRACKING - SRI	8	6 min	1	DIPHENHYDRAMINE	25		NO
17	Burns & Moskowitz (1980)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	25		NO wP
27	Cohen et al. (1984)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	DIPHENHYDRAMINE	25	YES	
67	Linnoila (1973)	TRACKING (Coordination tests I & II)	8	v. brief	1	DIPHENHYDRAMINE	25		NO
18A	Burns & Moskowitz (1993)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	25	YES	
18B	Burns & Moskowitz (1993)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	25	YES	
20	Burns et al. (1999 - ms)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	50		NO wP
27	Cohen et al. (1984)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	DIPHENHYDRAMINE	50	YES	
29	Cohen et al. (1987)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	DIPHENHYDRAMINE	50	YES	
57	Kay et al. (1997)	TRACKING - solo via CogScreen	8	brief	1	DIPHENHYDRAMINE	50	YES	
67	Linnoila (1973)	TRACKING (Coordination tests I & II)	8	v. brief	1	DIPHENHYDRAMINE	50		NO
73	Moskowitz & Burns (1988)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	50	YES	
93	Pishkin et al. (1983)	PURSUIT ROTOR - (Tracking)	8	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Snyder (1993)	TRACKING - WRPAB (Unstable Trking)	8	v. brief	1	DIPHENHYDRAMINE	50	YES	
127	Wilkinson & Moskowitz (1990)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	50	YES	
129	Wilkinson et al. (1999 - ms)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	1	DIPHENHYDRAMINE	50	YES	
130A	Witek, Jr. et al. (1992)	TRACKING	8	v. brief	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	DIPHENHYDRAMINE	100	YES	
68	Mattila et al. (1986)	TRACKING Task (Coordination test)	8	30 sec	1	DIPHENHYDRAMINE	100		NO wB
64	Levander et al. (1985)	TRACKING, Adaptive (~VMC per Nicholson)	8Cr	8 min	1	HYDROXYZINE	20	YES	
93	Pishkin et al. (1983)	PURSUIT ROTOR - (Tracking)	8	v. brief	1	HYDROXYZINE	25		NO
28	Cohen et al. (1985)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	TRIPOLIDINE	2.5	YES	
55	Irving & Jones (1992)	Adaptive TRACKING - Pursuit (Critical?)	8	10 min	1	TRIPOLIDINE	2.5		NO
76	Nicholson (1979)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	2.5	YES	
28	Cohen et al. (1985)	TRACKING - Adaptive (VMC)	8Cr	10 min	1	TRIPOLIDINE	5	YES	
55	Irving & Jones (1992)	Adaptive TRACKING - Pursuit (Critical?)	8	10 min	1	TRIPOLIDINE	5		NO
12	Bradley & Nicholson (1986)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
14	Bradley & Nicholson (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
76	Nicholson (1979)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
77	Nicholson & Stone (1982)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
79	Nicholson & Stone (1983)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
80	Nicholson & Stone (1984)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
82	Nicholson & Stone (1986)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
13A	Bradley et al. (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	
13B	Bradley et al. (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	1	TRIPOLIDINE	10	YES	

continued...

TRACKING TASKS - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

continued... Page 2: sorted by Generation, DRUG, Dose, Ref#, SC#.

Row	REFERENCE	TASK (or Subjective SEDATION)	SC#	Duration	Qty	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
2nd Generation Drugs:									
77	Nicholson & Stone (1982)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	ASTEMIZOLE	20		NO
113	Seppala & Savolainen (1982)	TRACKING - "Coord.Task ("steer black dot on	8	30 sec	2	ASTEMIZOLE	30		NO
84	Nicholson & Turner (1998)	TRACKING Task (compensatory?)	8	3 min	2	CETIRIZINE	5	YES	
84	Nicholson & Turner (1998)	TRACKING Task (compensatory?)	8	3 min	2	CETIRIZINE	10		NO
95	Ramaekers et al. (1992)	CRITICAL TRACKING (CTT) - ~Scri, but 5tri	8Cr	brief	2	CETIRIZINE	10		NO
100	Riedel et al. (1990)	CRITICAL TRACKING (CTT)	8Cr		2	CETIRIZINE	10	YES	
84	Nicholson & Turner (1998)	TRACKING Task (compensatory?)	8	3 min	2	CETIRIZINE	20	YES	
100	Riedel et al. (1990)	CRITICAL TRACKING (CTT)	8Cr		2	CETIRIZINE	20	YES	
122	Vermeeren et al. (1998)	CRITICAL TRACKING (CTT) - ~Scri (5 trials	8Cr	v. brief	2	FEXOFENADINE	120	YES	
122	Vermeeren et al. (1998)	CRITICAL TRACKING (CTT) - ~Scri (5 trials	8Cr	v. brief	2	FEXOFENADINE	240	YES	
14	Bradley & Nicholson (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	LORATADINE	10		NO
42	Gaillard et al. (1988)	TRACKING - Pursuit; performed alone	8	7 min	2	LORATADINE	10		NO
57	Kay et al. (1997)	TRACKING - solo via CogScreen	8	brief	2	LORATADINE	10		NO
95	Ramaekers et al. (1992)	CRITICAL TRACKING (CTT) - ~Scri, but 5tri	8Cr	brief	2	LORATADINE	10		NO
127	Wilkinson & Moskowitz (1990)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	2	LORATADINE	10		NO
14	Bradley & Nicholson (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	LORATADINE	20		NO
14	Bradley & Nicholson (1987)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	LORATADINE	40		NO
26	Clarke & Nicholson (1978)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	TERFENADINE	60		NO
42	Gaillard et al. (1988)	TRACKING - Pursuit; performed alone	8	7 min	2	TERFENADINE	60		NO
61	Kulshrestha et al. (1978)	PURSUIT ROTOR - (Tracking)	8	brief	2	TERFENADINE	60		NO
73	Moskowitz & Burns (1988)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	2	TERFENADINE	60		NO bP
77	Nicholson & Stone (1982)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	TERFENADINE	60		NO
79	Nicholson & Stone (1983)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	TERFENADINE	60		NO
130A	Witek, Jr. et al. (1992)	TRACKING	8	v. brief	2	TERFENADINE	60		NO
18A	Burns & Moskowitz (1993)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	2	TERFENADINE	60		NO
18B	Burns & Moskowitz (1993)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	2	TERFENADINE	60		NO
82	Nicholson & Stone (1986)	TRACKING (Vis. Motor Coord. = VMC)	8Cr	10 min	2	TERFENADINE	120		NO
18B	Burns & Moskowitz (1993)	CRITICAL TRACKING (CTT) - SRI	8Cr	20+ min	2	TERFENADINE	120		NO

NOTE: Across all types of TRACKING TASKS, the 1st generation drugs were found to be significantly impairing in 68.8% of the times tested; this is compared to 18.8% for the 2nd generation drugs. However, when CRITICAL TRACKING TASKS specifically were used, impairment was found in 90.3% (28/31) vs 19.0% (4/21) of the cases, for the 1st and 2nd generation drugs, respectively. Moreover, at least 2 of the 3 test findings for the 1st generation drugs which were not significant nonetheless showed performance which was clearly worse than Placebo ("NO wP" in table above) and in fact approached statistical significance ($p < 0.08$).

Ref#	REFERENCE	TASK	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
8	Biehl (1979)	COMPLEX REACTION TEST	9C	~ 3min	1	CHLORPHENIRAMINE	4		NO
8	Biehl (1979)	REACTION TIME - simple	9S	v. brief	1	CHLORPHENIRAMINE	4		NO
35	Dhorraintra et al. (1990)	REACTION TIME - Choice (red light)	9C	brief	1	CHLORPHENIRAMINE	4	YES	
40	Franks et al. (1978)	REACTION TIME - Complex	9C		1	CHLORPHENIRAMINE	4		NO
40	Franks et al. (1978)	REACTION TIME - Simple, Aud & Vis	9S		1	CHLORPHENIRAMINE	4		NO
61	Kulshrestha et al. (1978)	REACTION TIME - Simple (single light)	9S	brief	1	CHLORPHENIRAMINE	4		NO
131B	Witek, Jr. et al. (1995)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	CHLORPHENIRAMINE	4	YES	
63	Lee et al. (1988)	REACTION TIME, SIMPLE - Auditory	9S	v. brief	1	CHLORPHENIRAMINE	12	YES	
41	Franks et al. (1979)	REACTION TIME - Complex	9C		1	CLEMASTINE	1		NO
41	Franks et al. (1979)	REACTION TIME - Simple, Aud & Vis	9S		1	CLEMASTINE	1		NO
42	Gaillard et al. (1988)	REACTION TASK - visual field: digits, degraded	9	24 min	1	CLEMASTINE	1		NO
91	Peck et al. (1975)	REACTION TIME, Simple (SRT); Aud	9S	15 min	1	CLEMASTINE	1	YES	
93	Pishkin et al. (1983)	REACTION TIME, SRT & CRT (Speeded Interference Task);	9	v. brief	1	CLEMASTINE	1		NO
112	Seppala et al. (1981)	Complex CRT; (vis/aud; pedal/button)	9C	~1min	1	CLEMASTINE	1		NO
87	Patat et al. (1994)	REACTION TIME, Choice (CRT); Visual	9C	50 trials	1	CLEMASTINE	2	YES	
91	Peck et al. (1975)	REACTION TIME, Simple (SRT); Aud	9S	15 min	1	CLEMASTINE	2	YES	
93	Pishkin et al. (1983)	REACTION TIME, SRT & CRT (Speeded Interference Task);	9	v. brief	1	CLEMASTINE	2		NO
64	Levander et al. (1985)	REACTION TIME - Choice; visual	9C	v. brief	1	CLEMASTINE	3	YES	
64	Levander et al. (1985)	REACTION TIME - Simple; aud & visual	9S	v. brief	1	CLEMASTINE	3	YES	
122	Vermeeren et al. (1998)	REACTION TIME, Choice (CRT); Vis (L&R w. distractors)	9C	v. brief	1	CLEMASTINE	3		NO
27	Cohen et al. (1984)	REACTION TIME - Simple, Visual	9S	5 min	1	DIPHENHYDRAMINE	25	YES	
67	Linnoila (1973)	REACTION TIME, Choice (CRT)	9C	v. brief	1	DIPHENHYDRAMINE	25		NO
131B	Witek, Jr. et al. (1995)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	DIPHENHYDRAMINE	25	YES	
4	Berlinger et al. (1982)	REACTION TIME - Simple	9S	very brief	1	DIPHENHYDRAMINE	50		NO
24	Carruthers et al. (1978)	REACTION TIME - simple, visual	9S	v. brief	1	DIPHENHYDRAMINE	50	YES	
27	Cohen et al. (1984)	REACTION TIME - Simple, Visual	9S	5 min	1	DIPHENHYDRAMINE	50	YES	
29	Cohen et al. (1987)	REACTION TIME - Simple, Visual	9S	5 min	1	DIPHENHYDRAMINE	50	YES	
56	Katz et al. (1998)	REACTION TIME - Simple; visual?	9S	brief	1	DIPHENHYDRAMINE	50	YES	
57	Kay et al. (1997)	REACTION TIME - Simple; CogScreen	9S	brief	1	DIPHENHYDRAMINE	50		NO
66	Lines et al. (1997)	REACTION TIME, Choice; (& CPRT)	9C	brief	1	DIPHENHYDRAMINE	50		NO
67	Linnoila (1973)	REACTION TIME, Choice (CRT)	9C	v. brief	1	DIPHENHYDRAMINE	50		NO bC
93	Pishkin et al. (1983)	REACTION TIME, SRT & CRT (Speeded Interference Task);	9	v. brief	1	DIPHENHYDRAMINE	50		NO
98	Rice & Snyder (1993)	Four Choice REACTION TIME - WRPAB	9C	v. brief	1	DIPHENHYDRAMINE	50		NO
108	Sands et al. (1997)	REACTION TIME - (PC task)	9	brief	1	DIPHENHYDRAMINE	50	YES	
116	Spector et al. (1980)	REACTION TIME, Simple (SRT) - visual	9S	v. brief	1	DIPHENHYDRAMINE	50		NO
130A	Witek, Jr. et al. (1992)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	DIPHENHYDRAMINE	50	YES	
130B	Witek, Jr. et al. (1992)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	DIPHENHYDRAMINE	50	YES	
131A	Witek, Jr. et al. (1995)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	DIPHENHYDRAMINE	50	YES	
131B	Witek, Jr. et al. (1995)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	1	DIPHENHYDRAMINE	50	YES	
108	Sands et al. (1997)	REACTION TIME - (PC task)	9	brief	1	DIPHENHYDRAMINE	75	YES	
27	Cohen et al. (1984)	REACTION TIME - Simple, Visual	9S	5 min	1	DIPHENHYDRAMINE	100	YES	
68	Mattila et al. (1986)	REACTION TIME, Choice (CRT); Vis & Aud	9C	v. brief	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	REACTION TIME tests - SRT & CRT	9	v. brief	1	DIPHENHYDRAMINE	100		NO
94	Preston et al. (1992)	REACTION TIME tests - SRT & CRT	9	v. brief	1	DIPHENHYDRAMINE	200		NO
64	Levander et al. (1985)	REACTION TIME - Choice; visual	9C	v. brief	1	HYDROXYZINE	20	YES	
64	Levander et al. (1985)	REACTION TIME - Simple; aud & visual	9S	v. brief	1	HYDROXYZINE	20	YES	
65	Levander et al. (1991)	REACTION TIME - Choice; visual	9C	v. brief	1	HYDROXYZINE	20		NO
65	Levander et al. (1991)	REACTION TIME - Simple; aud & visual	9S	v. brief	1	HYDROXYZINE	20		NO
93	Pishkin et al. (1983)	REACTION TIME, SRT & CRT (Speeded Interference Task);	9	v. brief	1	HYDROXYZINE	25		NO
28	Cohen et al. (1985)	REACTION TIME - Simple, Visual	9S	5 min	1	TRIPOLIDINE	2.5	YES	
48	Hamilton et al. (1982)	REACTION TIME - Simple, Auditory	9S	15 min	1	TRIPOLIDINE	2.5		NO
91	Peck et al. (1975)	REACTION TIME, Simple (SRT); Aud	9S	15 min	1	TRIPOLIDINE	2.5	YES	
22	Bye et al. (1977)	REACTION TIME - Auditory	9	15 min	1	TRIPOLIDINE	5	YES	
28	Cohen et al. (1985)	REACTION TIME - Simple, Visual	9S	5 min	1	TRIPOLIDINE	5	YES	
91	Peck et al. (1975)	REACTION TIME, Simple (SRT); Aud	9S	15 min	1	TRIPOLIDINE	5	YES	
117	Swire et al. (1989)	REACTION TIME, Simple (SRT) - during ERP	9S	8 min	1	TRIPOLIDINE	7.5		NO
12	Bradley & Nicholson (1986)	REACTION TIME - COMPLEX - CRT	9C	~5 min	1	TRIPOLIDINE	10		NO
58	Kerr et al. (1994)	REACTION TIME - Choice (CRT) Leads	9C	20 trials	1	TRIPOLIDINE	10	YES	
104	Rombaut et al. (1991)	REACTION TIME, Choice (CRT)	9C	v. brief	1	TRIPOLIDINE	10		NO
13A	Bradley et al. (1987)	REACTION TIME - COMPLEX - CRT	9C	~5 min	1	TRIPOLIDINE	10		NO
13B	Bradley et al. (1987)	REACTION TIME - COMPLEX - CRT	9C	~5 min	1	TRIPOLIDINE	10		NO

continued...

REACTION TIME TASKS - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

Page 2: sorted by Generation, DRUG, Dose, Ref#, SC#.

Ref#	REFERENCE	TASK	SC#	Duration	Gen:	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
2nd Generation Drugs:									
65	Levander et al. (1991)	REACTION TIME - Choice; visual	9C	v. brief	2	CETIRIZINE	10		NO
65	Levander et al. (1991)	REACTION TIME - Simple; aud & visual	9S	v. brief	2	CETIRIZINE	10		NO
95	Ramaekers et al. (1992)	REACTION TIME, Choice (CRT); Sternberg digits	9C	10 min	2	CETIRIZINE	10	YES	
95	Ramaekers et al. (1992)	Response Competition Test (RCT)	9C	15 min	2	CETIRIZINE	10		NO
100	Riedel et al. (1990)	REACTION TIME, Choice (CRT); Sternberg digits	9C		2	CETIRIZINE	10	YES	
6	Betts et al. (1989)	REACTION TIME, Choice (CRT)	9C		2	CETIRIZINE	20		NO
6	Betts et al. (1989)	REACTION TIME, Simple (SRT)	9S		2	CETIRIZINE	20	YES	
100	Riedel et al. (1990)	REACTION TIME, Choice (CRT); Sternberg digits	9C		2	CETIRIZINE	20	YES	
122	Vermeeren et al. (1998)	REACTION TIME, Choice (CRT); Vis (L&R w. distractors)	9C	v. brief	2	FEXOFENADINE	120		NO
122	Vermeeren et al. (1998)	REACTION TIME, Choice (CRT); Vis (L&R w. distractors)	9C	v. brief	2	FEXOFENADINE	240		NO
37	Englich et al. (1996)	REACTION TIME - Choice; CRT in ODT	9C		2	LORATADINE	10		NO
42	Gaillard et al. (1988)	REACTION TASK - visual field: digits, degraded	9	24 min	2	LORATADINE	10		NO
57	Kay et al. (1997)	REACTION TIME - Simple; CogScreen	9S	brief	2	LORATADINE	10		NO
95	Ramaekers et al. (1992)	REACTION TIME, Choice (CRT); Sternberg digits	9C	10 min	2	LORATADINE	10		NO
95	Ramaekers et al. (1992)	Response Competition Test (RCT)	9C	15 min	2	LORATADINE	10		NO
109	Schaffler et al. (1994)	REACTION TIME, Choice - CRT (during ODT)	9C	dur ODT	2	LORATADINE	10		NO
6	Betts et al. (1989)	REACTION TIME, Choice (CRT)	9C		2	TERFENADINE	60		NO
6	Betts et al. (1989)	REACTION TIME, Simple (SRT)	9S		2	TERFENADINE	60		NO
7	Bhatti & Hindmarch (1989)	CHOICE REACTION TIME (CRT)	9C	very brief	2	TERFENADINE	60		NO
42	Gaillard et al. (1988)	REACTION TASK - visual field: digits, degraded	9	24 min	2	TERFENADINE	60		NO
58	Kerr et al. (1994)	REACTION TIME - Choice (CRT) Leeds	9C	20 trials	2	TERFENADINE	60		NO
61	Kulshrestha et al. (1978)	REACTION TIME - Simple (single light)	9S	brief	2	TERFENADINE	60		NO
117	Swire et al. (1989)	REACTION TIME, Simple (SRT) - during ERP	9S	8 min	2	TERFENADINE	60		NO
130A	Witek, Jr. et al. (1992)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	2	TERFENADINE	60		NO
131A	Witek, Jr. et al. (1995)	REACTION TIME, Choice (CRT); Vis	9C	v. brief	2	TERFENADINE	60		NO
6	Betts et al. (1989)	REACTION TIME, Choice (CRT)	9C		2	TERFENADINE	120		NO
6	Betts et al. (1989)	REACTION TIME, Simple (SRT)	9S		2	TERFENADINE	120		NO
7	Bhatti & Hindmarch (1989)	CHOICE REACTION TIME (CRT)	9C	very brief	2	TERFENADINE	120		NO
74	Murri et al. (1992)	REACTION TIME, Simple (SRT); Vis & Aud	9S	brief	2	TERFENADINE	120		NO
7	Bhatti & Hindmarch (1989)	CHOICE REACTION TIME (CRT)	9C	very brief	2	TERFENADINE	240		NO

TABLE 14. PHYSIOLOGICAL MEASURES - Summary of impairment findings as a function of DRUG and Dose - ACUTE DOSING only

Sheet: PHYSIO.

page 2: sorted by Generation, DRUG, Dose, Ref#, SC#.

Ref#	REFERENCE	TASK	SC#	Duration	Gen	DRUG	Dose: mg	IMPAIRMENT?	
								YES	NO
1st Generation Drugs:									
47	Goldstein et al. (1968)	EEG	10		1	CHLORPHENIRAMINE	2		NO
47	Goldstein et al. (1968)	EEG	10		1	CHLORPHENIRAMINE	4	YES	
69	Meador et al. (1989)	ERP - tonal oddball vigilance for P3	10		1	CHLORPHENIRAMINE	8	YES	
83	Nicholson et al. (1991)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	CHLORPHENIRAMINE	8	YES	
63	Lee et al. (1988)	EEG - power spectrum analysis	10	?	1	CHLORPHENIRAMINE	12		NO bP
53	Hopes et al. (1992)	EEG - auditory tones for vigilance	10	20 min?	1	CLEMASTINE	2	YES	
30	Curran et al. (1998)	ERP during Oddball task (auditory - tones)	10	20 min?	1	DIPHENHYDRAMINE	25		NO
30	Curran et al. (1998)	ERP during Word Recognition (visual)	10	20 min?	1	DIPHENHYDRAMINE	25		NO
47	Goldstein et al. (1968)	EEG	10		1	DIPHENHYDRAMINE	25	YES	
30	Curran et al. (1998)	ERP during Oddball task (auditory - tones)	10	20 min?	1	DIPHENHYDRAMINE	50	YES	
30	Curran et al. (1998)	ERP during Word Recognition (visual)	10	20 min?	1	DIPHENHYDRAMINE	50	YES	
39	Fink et al. (1979)	EEG	10		1	DIPHENHYDRAMINE	50	YES	
47	Goldstein et al. (1968)	EEG	10		1	DIPHENHYDRAMINE	50	YES	
101	Roehrs et al. (1984)	Multiple Sleep Latency Test - MSLT	10M	1 hr	1	DIPHENHYDRAMINE	50	YES	
102	Roehrs et al. (1993)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	DIPHENHYDRAMINE	50	YES	
110	Schweitzer et al. (1994)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	DIPHENHYDRAMINE	50	YES	
114	Simons FE et al. (1996)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	1	DIPHENHYDRAMINE	50	YES	
119	Tharion et al. (1994)	ERP - visual patterns (PREP)	10		1	DIPHENHYDRAMINE	50	YES	
119	Tharion et al. (1994)	ERP - auditory (BAEP)	10		1	DIPHENHYDRAMINE	50		NO
126	Walsh et al. (1994)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	DIPHENHYDRAMINE	50	YES	
115A	Simons KJ et al. (1994)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	1	DIPHENHYDRAMINE	50	YES	
111	Seidel et al. (1987)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	HYDROXYZINE	25	YES	
9	Blom et al. (1992)	EEG - spectral analysis for 5 bands	10		1	HYDROXYZINE	30	YES	
115A	Simons KJ et al. (1994)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	1	HYDROXYZINE	50	YES	
82	Nicholson & Stone (1986)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	TRIPOLIDINE	2.5	YES	
82	Nicholson & Stone (1986)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	TRIPOLIDINE	5	YES	
83	Nicholson et al. (1991)	Multiple Sleep Latency Test - MSLT	10M	20 min	1	TRIPOLIDINE	5	YES	
117	Swire et al. (1989)	ERP during Oddball task (auditory - tones)	10	8 min	1	TRIPOLIDINE	7.5		NO
2nd Generation Drugs:									
114	Simons FE et al. (1996)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	2	ASTEMIZOLE	10		NO
115A	Simons KJ et al. (1994)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	2	ASTEMIZOLE	10		NO
84	Nicholson & Turner (1998)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	5		NO
111	Seidel et al. (1987)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	5		NO
84	Nicholson & Turner (1998)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	10	YES	
89	Pechadre et al. (1988)	EEG - quantitative, spectral analysis	10	5 min	2	CETIRIZINE	10		NO
90	Pechadre et al. (1991)	EEG - quantitative, spectral analysis	10	5 min	2	CETIRIZINE	10		NO
95	Ramaekers et al. (1992)	EEG, during Drive	10	1 hr	2	CETIRIZINE	10	YES	
110	Schweitzer et al. (1994)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	10		NO
111	Seidel et al. (1987)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	10		NO
114	Simons FE et al. (1996)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	2	CETIRIZINE	10		NO
126	Walsh et al. (1994)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	10		NO
33	De Roeck et al. (1990)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	10		NO
84	Nicholson & Turner (1998)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	20		NO?
111	Seidel et al. (1987)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	CETIRIZINE	20		NO
90	Pechadre et al. (1991)	EEG - quantitative, spectral analysis	10	5 min	2	CETIRIZINE	20		NO
95	Ramaekers et al. (1992)	EEG, during Drive	10	1 hr	2	LORATADINE	10		NO
114	Simons FE et al. (1996)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	2	LORATADINE	10		NO
33	De Roeck et al. (1990)	Multiple Sleep Latency Test - MSLT	10M	20 min	2	LORATADINE	20		NO
90	Pechadre et al. (1991)	EEG - quantitative, spectral analysis	10	5 min	2	LORATADINE	40	YES	
39	Fink et al. (1979)	EEG	10		2	TERFENADINE	60		NO
69	Meador et al. (1989)	ERP - tonal oddball vigilance for P3	10		2	TERFENADINE	60		NO?
89	Pechadre et al. (1988)	EEG - quantitative, spectral analysis	10	5 min	2	TERFENADINE	60	YES	
101	Roehrs et al. (1984)	Multiple Sleep Latency Test - MSLT	10M	1 hr	2	TERFENADINE	60		NO
114	Simons FE et al. (1996)	ERP during Oddball task (auditory - tones)	10	20 min (5mir)	2	TERFENADINE	60		NO bP
117	Swire et al. (1989)	ERP during Oddball task (auditory - tones)	10	8 min	2	TERFENADINE	60		NO
119	Tharion et al. (1994)	ERP - visual patterns (PREP)	10		2	TERFENADINE	60		NO
119	Tharion et al. (1994)	ERP - auditory (BAEP)	10		2	TERFENADINE	60		NO

Note: 100% of findings for 1st generation drugs (9/9 vs 1/11=9.1% for 2nd gen.) showed significant sedation as measured by MSLT (SC# 10M). EEG and ERP findings (SC# 10) were more variable, resulting in 68.4% "YES" significant impairment in 1st generation drugs (13/19) vs 17.6% in 2nd generation drugs (3/17). Overall (SC# 10, 10M), the Physiological measures of sedation demonstrated significant impairment in 78.6% 1st generation drugs vs 14.3% 2nd gen.