

TABLE 3

Results of the Trials, by Comparison Groups

Comparison	Ref	Study Size	Drug	Absolute Reduction in Heart Rate at Rest and Statistical Significance of Difference (Beats per Minute), P		Absolute Reduction in Heart Rate with Exercise and Statistical Significance of Difference (Beats per Minute), P		Difference in Exercise Tolerance, Units‡	Comments
Calcium-Channel Blockers vs Placebo	16	113	dilt	23	<.001	—	—	—	Several trials had multiple arms with different drug dosages; last 2 studies listed reported significantly greater percentages of patients reaching the targeted lower heart rate with diltiazem than placebo
	15§	6	dilt(low)	19	<.01 for trend	24	<.05	+1.9	
	15	6	dilt (hi)	32	<.01 for trend	34	<.05	+0.1 L/min	
	15	6	ver	22	<.01 for trend	21	<.05	+0.5	
	19	19	dilt	12	<.001	20	<.001	+2	
	19	19	ver	8	<.01	21	<.001	+1 mL/kg/min	
	21	21	ver	23	<.001	34	<.001	-0.1 Borg Scale	
	20	15	ver	22	<.01 for trend	33	<.01	+18 meters	
	22	27	ver	18	<.01	31	<.01	—	
	17	37	dilt	—	—	—	—	—	
18	44	dilt	—	—	—	—	—		
b-blockers vs Placebo	20	15	xam	7	not significant	34	<.01	+19 meters	Several trials had more than one arm, control at rest varies with choice of b-blocker; timolol study reported greater number of patients reaching target heart rate with timolol than placebo; xamoterol and celiprolol not available in the United States
	21	21	xam	6	not significant	25	<.001	-0.3 Borg scale	
	21	21	xam	11	<.01	33	<.001	+0.1 Borg scale	
	24	13	xam	-2	not significant	23	significant	+1.0 minutes	
	23	82	tim	—	—	—	—	0 L/min	
	25	17	nad	19	<.001	49	<.001	-1.5 minutes	
	26	9	celip	7	not significant	53	<.01	-1.2 minutes	
	27	21	celip	—	—	not reported	significant	+65 meters	
	20	15	aten	22	significant	44	<.01	—	
	28	8	aten	24	<.001	—	—	—	
	28	8	aten	26	<.001	—	—	—	
28	8	pind	19	<.001	—	—	—		
28	8	pind	13	<.001	—	—	—		
29	11	labet	11	not significant	19	<.01	+1.5 minutes		
Digoxin vs Placebo	29	11	dig	11	not significant	-2	not reported	-0.1 minutes	Different dosing regimens across trials—some fixed doses, some titrated to blood levels
	15	6	dig	4	<.01 for trend	8	not significant	+3.6 L/min	
	23	13	dig	8	<.01	9	not significant	+0.5 minutes	
	31	36	dig	2	not significant	—	—	—	
	32	239	dig	25	<.0001	—	—	—	
	33	39	dig	21	<.02	—	—	—	
	39	45	dig	21	<.01	31	not reported	no difference	
Calcium-Channel Blockers vs Digoxin	41	20	dilt	27	<.01	—	—	—	Significance of the change from baseline often reported, without comparison of calcium-channel blocker to digoxin; verapamil at 80 mg three times daily more effective than at 40 mg. Xamoterol is unavailable in U.S., effective metoprolol dose was 50-100 mg twice daily; labetalol dose was titrated as tolerated.
	20	14	dilt	9	not reported	12	not reported	—	
	15	6	dilt	15	<.01 for trend	16	<.05	-1.5 L/min	
	15	6	dilt	29	<.01 for trend	26	<.05	-3.5 L/min	
	15	6	ver	18	<.01 for trend	13	<.05	-3.1 L/min	
	42	8	ver	-12	not reported	-7	not reported	-1.8 mL/min/kg	
	42	8	ver	-1	not reported	20	<.05	+5.5 mL/min/kg	
b-blockers vs Digoxin	43	10	ver	15	not reported	44	not reported	+4.2 minutes	
	44	25	xam	-12	<.001	NR	—	—	
	23	13	xam	-10	<.01	14	significant	—	
	43	10	metop	8	not reported	33	not reported	+3.4 minutes	
29	11	labet	0	not significant	21	<.01	+1.4 minutes		

*Total number of patients at start of trial, intention to treat outcomes presented when available.

†Significant and not significant are used when reported as such in the trial.

‡L/min is a measure of cardiac output; mL/kg/min, a measure of maximum oxygen consumption; Borg scale, a measure of fitness with bicycle ergometry; meters or minutes refers to having walked on treadmill; positive means that first agent listed was superior.

§Two dosages.

Ref denotes reference; dilt, diltiazem; ver, verapamil; xam, xamoterol; tim, timolol; nad, nadolol; celip, celiprolol; aten, atenolol; pind, pindolol; labet, labetalol; metop, metoprolol.