

Supplemental Table 2. Detail Characteristics of Coenzyme Q₁₀ Supplementation Studies.

Study	Study Design	Washout Period	Medications Used	Formulation of CoQ ₁₀	Funding/Support	Measurement Technique for EF and CoQ ₁₀ Blood Levels
Langjoen, 1985 (14)	X	NO	Digoxin, diuretics, 84% afterload reducers, 30% anti-arrhythmics	NR	In part by Robert Welch Foundation, TX	EF using Weissler method, CoQ ₁₀ measured using HPLC method by Folkers
Poggesi, 1991 (15)	X	30 days	Digoxin, ACEI, diuretics	CoQ ₁₀ Decorenone (Life Pharma, SRL, Milan, Italy)	NR	EF measured by mono and 2-dim echo (model sim 5000, ESAOTE, Biomedica, Italy), using annular ray device (3.5 and 2.5 MHz), measured by 2 experienced observers who had no part in drug administration. All measures corrected for HR, pre-ejection period index and represent average of 10 cycles. CoQ ₁₀ blood measurement N/A.
Permanetter, 1992 (16)	X	NO	Digoxin, diuretics, nifedipine, nitrates	Ubiquinone Zymba Gmbh (Munich, Germany)	NR	EF measured by radionuclide ventriculography, using bicycle ergometer at rest and exercise. Scintiscanning done at each increase stress interval. Blood measurement N/A.
Judy, 1993 (17)	P	N/A	No mention of medications used	NR	Master Pharma, Parma Italy	LVEF measured with electrical impedance method. Blood CoQ ₁₀ measured using from venous samples using HPLC method, frozen using conventional methods and stored for analysis.

Rengo, 1993 (18)	P	N/A	Digitalis (80-96%), diuretics(86%), vasodilators(6.6-3.3%), non-digitalis ionotropic medications (23-10%)	NR	NR	Methodology not specified
Morisco, 1994 (19)	X	NO	Anti-arrhythmics, +/- nitrates,	NR	NR	EF calculated using time-activity curves from VEST using tagged red blood cells. Blood measurement N/A.
Hofman-Bang, 1995 (20)	X	NO	vasodilators, 75% digoxin, 96% diuretics, ACEI 60%	CoQ10 Pharmacia (Stockholm, Sweden)	Grants from Swedish Heart and Lung Foundation and Pharmacia, Sweden	EF measured by nuclear angiography. Measured supine, with slight load (increase legs) exercise measured after 6 minutes via gamma camera. Plasma levels of CoQ ₁₀ measured using HPLC, described by Edlund, coefficient of variation of method is 2%.
Munkholm, 1999 (21)	P	N/A	Previous medications continued	CoQ10 in soya oil (Bioqinon, Pharma Nord)	NR	EF measured by radionuclide ventriculography. CoQ ₁₀ blood measurement N/A.
Watson, 1999 (22)	X	1 week	ACEI (100%), Digoxin (24%), Lasix (28%), Hydralazine +/- nitrates (25%)	NR	NR	EF calculated using Simpson's biplane method, from LVED and LVES volumes. Strong linear correlation between echocardiographers (r=0.94, p<0.01). CoQ ₁₀ plasma measurement used with HPLC and reverse C-18 column. Very detailed methodology.

Khatta, 2000 (23)	P	N/A	NR	NR	Partial support by National Institute of Aging, Claude D. Pepper Older Americans Independence Center, Bethesd a, Maryland	EF was measured by radionuclide ventriculography using standard techniques. Serum CoQ ₁₀ measured using HPLC, described by Edlund.
Kheogh, 2003 (24)	P	N/A	All on ACEI, Amiodarone (33%), nitrates (50-40%), diuretics (100- 82%), Hydralazine (17%), Digoxin (83-59%), NO BB	NR	Partial support from Blackmores Ltd, Balgowlah, Sydney and Pharma Nord, Denmark	EF measurement method not described. CoQ ₁₀ blood measured using HPLC, using Edlund method.
Berman, 2004 (12)	P	N/A	Diuretics (76%), antiarrhythmics (45%), BB (52%), digitalis (85%), afterload reducing agents (65%), ACEI (45%), anti- coagulation (19%)	Ultrasome coenzyme Q10, Herbamed Ltd (Science Park Kiryat Weizmann, Rehovot, Israel)- long description of bioavailability	NR	EF measurements not described beyond stating it was done with echocardiography. CoQ ₁₀ blood measurement performed with HPLC using Grossi's method, modifying it to use 2cc instead of 1cc plasma due to low amounts of Q ₁₀ in serum.

Belardinelli, 2005 (13)	X	NO	Nitrates, ACEI, BB, Digoxin, diuretics, aspirin, warfarin, 9/21 taking statin until 1 month before trial began.	Q absorb-100 Jarrow Formulas, Los Angeles, CA	NR	EF measured by 2D echocardiography using wide-angle mechanical scanner (2.5MHz, Challenge, ESAOTE, Italy). CoQ10 plasma measured using HPLC with direct extraction method.
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Abbreviations: P, parallel; X, Cross-over; NR, not reported; N/A, not applicable; EF, ejection fraction; CoQ₁₀, coenzyme Q10; ACEI, angiotensin-converting enzyme inhibitor; BB, beta-blocker; HPLC, high performance liquid chromatography; LVED, left ventricular end diastolic; LVES, left ventricular end systolic; VEST, ambulatory radionuclide detector.