

Supplemental Online Content

Thiazide Diuretics Alone or Combined with Potassium-Sparing Diuretics to Treat Hypertension: A Systematic Review and Network Meta-Analysis of Randomized Controlled Trials

Acronyms and abbreviations

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Acronyms and abbreviations

AARA = Alpha-2 adrenergic receptor agonist
ACEi = Angiotensin-converting enzyme inhibitor
ARB = Angiotensin receptor blocker
BB = Beta-blocker
CCB = Calcium channel blocker
LD = Loop diuretic
PL = Placebo
PS = Potassium-sparing diuretic
T = Thiazide
V = Vasodilator

Search strategy

1. PubMed/MEDLINE

#1 hydrochlorothiazide[MeSH] OR chlorothiazide[MeSH] OR dichlothiazide OR dihydrochlorothiazide OR hctz OR butizide OR buthiazide OR isobutylhydrochlorothiazide OR bendroflumethiazide[MeSH] OR bendrofluazide OR hydroflumethiazide[MeSH] OR trifluoromethylhydrothiazide OR trichlormethiazide[MeSH] OR methyclothiazide[MeSH] OR polythiazide[MeSH] OR cyclothiazide OR cyclopenthiazide[MeSH] OR cyclomethiazide OR chlorthalidone[MeSH] OR chlortalidone OR chlorphthalidolone OR metolazone[MeSH] OR phthalamidine OR quinethazone OR metolazone OR quinethazone OR fenquione OR clorexolone OR chlorexolone OR clonamide[MeSH] OR indapamide[MeSH] OR metindamide OR diapamide OR mefruside[MeSH] OR xipamide[MeSH] OR bemetizide OR benzthiazide OR benzothiazide OR chlorazanil OR thiazide OR diuretics, thiazide[MeSH] OR thiazide diuretics[MeSH] OR benzothiadiazine diuretic[MeSH] OR sodium chloride symporter inhibitors OR sodium chloride cotransporter inhibitor OR potassium depleting diuretics OR diuretics, potassium depletion OR triamterene[MeSH] OR amiloride[MeSH] OR spironolactone[MeSH] OR eplerenone OR sodium channel blockers OR ENaC blocker OR inhibitor of the epithelial sodium channel[MeSH] OR coamilofide OR coamilofide OR aldosterone receptor antagonist[MeSH] OR aldosterone antagonist OR mineralocorticoid antagonist OR mineralocorticoid receptor antagonist OR potassium sparing diuretic[MeSH]

#2 hypertension[MeSH] OR "hypertensive patients"[tw] OR "patients, hypertensive" OR "blood pressure"[tiab] OR "systolic blood pressure"[tiab] OR "diastolic blood pressure"[tiab]

#3 randomized controlled trial[pt] OR controlled clinical trial[pt] OR clinical trial[pt] OR randomized controlled trials[mh] OR random allocation[mh] OR double-blind method[mh] OR singleblind method[mh] OR random*[tiab] OR random*[tw] OR ("clinical trial"[tw]) OR drug therapy[sh] OR trial[tiab] OR groups[tiab] OR prospective studies[mh] OR NOT (animal[mh] NOT human[mh])

#1 AND #2 AND #3

2. Cochrane Library

- #1 MeSH descriptor: [hydrochlorothiazide] explode all trees
- #2 MeSH descriptor: [chlorothiazide] explode all trees
- #3 MeSH descriptor: [bendroflumethiazide] explode all trees
- #4 MeSH descriptor: [hydroflumethiazide] explode all trees
- #5 MeSH descriptor: [cyclopenthiazide] explode all trees
- #6 MeSH descriptor: [trichlormethiazide] explode all trees
- #7 MeSH descriptor: [methyclothiazide] explode all trees
- #8 MeSH descriptor: [polythiazide] explode all trees
- #9 MeSH descriptor: [chlorthalidone] explode all trees
- #10 MeSH descriptor: [indapamide] explode all trees
- #11 MeSH descriptor: [thiazide diuretics] explode all trees
- #12 MeSH descriptor: [mefruside] explode all trees
- #13 MeSH descriptor: [xipamide] explode all trees
- #14 MeSH descriptor: [clopamide] explode all trees
- #15 MeSH descriptor: [triamterene] explode all trees
- #16 MeSH descriptor: [spironolactone] explode all trees
- #17 MeSH descriptor: [amiloride] explode all trees
- #18 MeSH descriptor: [sodium channel blockers] explode all trees
- #19 MeSH descriptor: [mineralocorticoid receptor antagonists] explode all trees

#20 dichlothiazide or dihydrochlorothiazide or hctz or butizide or buthiazide or isobutylhydrochlorothiazide or bendrofluazide or trifluoromethylhydrothiazide or cyclothiazide or cyclopenthiazide or cyclomethiazide or chlortalidone or chlorphthalidolone or metolazone or phthalamidine or quinethazone or metolazone or quinethazone or fenquizone or clorexolone or chlorexolone or metindamide or diapamide or bemetizide or benzthiazide or benzothiazide or chlorazanil or thiazide or diuretics, thiazide or benzothiadiazine or sodium chloride symporter inhibitors or sodium chloride cotransporter inhibitor or potassium depleting diuretics or diuretics, potassium depletion or eplerenone or EnaC blocker or inhibitor of the epithelial sodium channel or co-amilozide or coamilozide or mineralocorticoid antagonist or mineralocorticoid receptor antagonist or aldosterone antagonists or potassium sparing diuretic

- #21 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20
- #22 MeSH descriptor: [hypertension] explode all trees
- #23 "hypertensive patients" or "patients, hypertensive"
- #24 #22 or #23
- #25 MeSH descriptor: [Randomized Controlled Trial] explode all trees
- #26 MeSH descriptor: [Random Allocation] explode all trees
- #27 MeSH descriptor: [Randomized Controlled Trials as Topic] explode all trees
- #28 double-blind method or controlled clinical trial or clinical trial
- #29 #25 or #26 or #27 or #28
- #30 #21 and #24 and #29 in Trials

3. Embase

#1 'hydrochlorothiazide'/exp OR 'chlorothiazide'/exp OR 'bendroflumethiazide'/exp OR 'hydroflumethiazide'/exp OR 'cyclopenthiazide'/exp OR 'trichlormethiazide'/exp OR 'methyclothiazide'/exp OR 'polythiazide'/exp OR 'chlorthalidone'/exp OR 'indapamide'/exp OR 'thiazide diuretic agent'/exp OR 'mefruside'/exp OR 'xipamide'/exp OR 'clopamide'/exp OR dichlothiazide OR dihydrochlorothiazide OR hctz OR butizide OR buthiazide OR isobutylhydrochlorothiazide OR bendrofluazide OR trifluoromethylhydrothiazide OR cyclothiazide OR cyclopenthiazide OR cyclomethiazide OR chlortalidone OR chlorphthalidolone OR metolazone

OR phthalamudine OR quinethazone OR metolazone OR quinethazone OR fenquizone OR clorexolone OR chlorexolone OR metindamide OR diapamide OR bemetizide OR benzthiazide OR benzothiazide OR chlorazanil OR thiazide OR diuretics, thiazide OR benzothiadiazine OR sodium chloride symporter inhibitors OR sodium chloride cotransporter inhibitor OR potassium depleting diuretics OR diuretics, potassium depletion OR 'eplerenone'/exp OR 'triamterene'/exp OR 'spironolactone'/exp OR 'amiloride'/exp OR 'sodium channel blocking agent'/exp OR sodium channel blockers OR 'aldosterone receptor antagonists'/exp OR aldosterone antagonists OR 'potassium sparing diuretic agent'/exp OR potassium sparing diuretic OR EnaC blocker OR 'inhibitor of the epithelial sodium channel'/exp OR co-amilozide OR coamilozide OR 'mineralocorticoid antagonist'/exp OR mineralocorticoid receptor antagonist

#2 'hypertension'/exp OR 'hypertensive patient'/exp OR patients, hypertensive OR blood pressure OR 'systolic blood pressure'/exp OR 'diastolic blood pressure'/exp

#3 random\$ OR doubl\$ adj blind\$ OR singl\$ adj blind\$ OR assign\$ OR allocat\$ OR 'randomized controlled trial'/exp

#1 AND #2 AND #3

4. Web of Science

#1 TS=((hydrochlorothiazide OR chlorothiazide OR bendroflumethiazide OR hydroflumethiazide OR cyclopenthiazide OR trichlormethiazide OR methyclothiazide OR polythiazide OR chlorthalidone OR indapamide OR thiazide diuretic agent OR mefruside OR xipamide OR clopamide OR dichlothiazide OR dihydrochlorothiazide OR hctz OR butizide OR buthiazide OR isobutylhydrochlorothiazide OR bendrofluazide OR trifluoromethylhydrothiazide OR cyclothiazide OR cyclopenthiazide OR cyclomethiazide OR chlortalidone OR chlorphthalidolone OR metolazone OR phthalamudine OR quinethazone OR metolazone OR quinethazone OR fenquizone OR clorexolone OR chlorexolone OR metindamide OR diapamide OR bemetizide OR benzthiazide OR benzothiazide OR chlorazanil OR thiazide OR diuretics, thiazide OR benzothiadiazine OR sodium chloride symporter inhibitors OR sodium chloride cotransporter inhibitor OR potassium depleting diuretics OR diuretics, potassium depletion OR amiloride OR triamterene OR spironolactone OR eplerenone OR sodium channel blockers or aldosterone receptor antagonists or aldosterone antagonists or potassium sparing diuretic or EnaC blocker OR inhibitor of the epithelial sodium channel OR co-amilozide OR coamilozide OR mineralocorticoid antagonist OR mineralocorticoid receptor antagonist)

#2 TS=((hypertension OR hypertensive patients OR patients, hypertensive OR blood pressure OR systolic blood pressure OR diastolic blood pressure))

#3 TS=((randomized controlled trial OR controlled clinical trial OR clinical trial OR randomized controlled trials OR random OR clinical trial))

5. Lilacs

#1 (tw:(hydrochlorothiazide OR chlorothiazide OR bendroflumethiazide OR hydroflumethiazide OR cyclopenthiazide OR trichlormethiazide OR methyclothiazide OR polythiazide OR chlorthalidone OR indapamide OR thiazide diuretic agent OR mefruside OR xipamide OR clopamide OR dichlothiazide OR dihydrochlorothiazide OR hctz OR butizide OR buthiazide OR isobutylhydrochlorothiazide OR bendrofluazide OR trifluoromethylhydrothiazide OR cyclothiazide OR cyclopenthiazide OR cyclomethiazide OR chlortalidone OR chlorphthalidolone OR metolazone OR phthalamudine OR quinethazone OR metolazone OR quinethazone OR fenquizone OR clorexolone OR chlorexolone OR metindamide OR diapamide OR bemetizide OR benzthiazide OR benzothiazide OR chlorazanil

OR thiazide OR diuretics, thiazide OR benzothiadiazine OR sodium chloride symporter inhibitors OR sodium chloride cotransporter inhibitor OR potassium depleting diuretics OR diuretics, potassium depletion OR eplerenone OR amiloride OR triamterene OR spironolactone OR sodium channel blockers OR aldosterone receptor antagonists OR aldosterone antagonists OR potassium sparing diuretic OR ENaC blocker OR inhibitor of the epithelial sodium channel OR co-amilofide OR coamilofide OR mineralocorticoid antagonist OR mineralocorticoid receptor antagonist) AND (hypertension OR hypertensive patients OR patients, hypertensive OR blood pressure OR systolic blood pressure OR diastolic blood pressure))

#2 (tw:(hypertension OR "hypertensive patients" OR "patients, hypertensive" OR "blood pressure" OR "systolic blood pressure" OR "diastolic blood pressure"))

#3 (db:("LILACS"))

#1 AND #2 AND #3

6. Scopus

#1 KEY(hydrochlorothiazide OR chlorothiazide OR chlorthalidone OR indapamide OR thiazide AND diuretic OR eplerenone OR spironolactone OR triamterene OR amiloride) OR ALL(bendroflumethiazide OR hydroflumethiazide OR cyclopenthiazide OR trichlormethiazide OR methyclothiazide OR polythiazide OR thiazide diuretic agent mefruside OR xipamide OR clopamide OR dichlothiazide OR dihydrochlorothiazide OR hctz OR butizide OR buthiazide OR isobutylhydrochlorothiazide OR bendrofluazide OR trifluoromethylhydrothiazide OR cyclothiazide OR cyclopenthiazide OR cyclomethiazide OR chlortalidone OR chlorphthalidolone OR metolazone OR phthalamudine OR quinethazone OR metolazone OR quinethazone OR fenquizone OR clorexolone OR chlorexolone OR metindamide OR diapamide OR bemetizide OR benzthiazide OR benzothiazide OR chlorazanil OR thiazide OR diuretics, thiazide OR benzothiadiazine OR sodium chloride symporter inhibitors OR sodium chloride cotransporter inhibitor OR potassium depleting diuretics OR diuretics, potassium depletion OR aldosterone antagonists OR ENaC blocker OR co-amilofide OR coamilofide OR mineralocorticoid antagonist OR aldosterone receptor antagonists OR mineralocorticoid AND receptor AND antagonist OR inhibitor AND of AND the AND epithelial AND sodium AND channel OR sodium AND channel AND blockers OR potassium AND sparing AND diuretic)

#2 KEY(hypertension OR hypertensive AND patients)

#3 KEY(randomized AND controlled AND trial OR clinical AND trial) AND NOT review AND NOT (systematic AND review) AND NOT (observational AND study)

7. ERIC

"hypertension"

8. ClinicalTrials

Hypertension and Hypertensive Patients; 2) Applied Filters: active not recruiting; completed; terminated; unknown; 3) Interventional; 4) Diuretics; 5) Adults (18-64) and older adult (65+); 6) Phase 2, phase 3 or phase 4; 7) Funding: Other.

Table S1. Drug classification according to mean daily dose

Drug Name	Adult Dosing HTN (mg/day)	Low Dose ($<2\times$ start dose; mg/day)	High Dose ($\geq 2\times$ start dose; mg/day)
Altizide	7.5-15	<15	≥ 15
Amiloride	5-20	<10	≥ 10
Bemetizide	10-20	<20	≥ 20
Bendroflumethiazide	2.5	<5	≥ 5
Butizide	2.5-7.5	<5	≥ 5
Chlorothiazide	500-2000	<1000	≥ 1000
Chlorthalidone	12.5-100	<25	≥ 25
Cyclopenthiazide	0.25-0.5	<0.5	≥ 0.5
Hydrochlorothiazide	25-50	<50	≥ 50
Hydroflumethiazide	25-50	<50	≥ 50
Indapamide IR	2.5	<5	≥ 5
Indapamide SR	1.5	<3	≥ 3
Mefruside	25-50	<50	≥ 50
Methyclothiazide	2.5-5	<5	≥ 5
Metolazone (Mykrox)	0.5-1	<1	≥ 1
Metolazone (Zaroxolyn)	2.5-5	<5	≥ 5
Spironolactone	25-100	<50	≥ 50
Triamterene	50-100	<100	≥ 100
Xipamide	20	<40	≥ 40

Abbreviations: HTN, hypertension; IR, immediate-release; SR, sustained release.

Table S2. Studies excluded with their reasons for exclusion

Studies	Reasons for exclusion
Abetel 1978	Not design of interest
Adlin 1972	Not design of interest
Agrawal 1979	Not design of interest
Ahaneku 1994	Not design of interest
Ahaneku 1995	Not design of interest
Akbar 1981	Not design of interest
Albanesi Filho 1980	Not design of interest
Alem 2008	Not population of interest
Alhenc-Gelas 1978	Not design of interest
Amabile 1985	Not design of interest
Amery 1982	Not design of interest
Amery 1983	Not design of interest
Amery 1985	Not design of interest
Amery 1986	Not design of interest
Amery 1986 (2)	Not design of interest
Ames 1978	Not design of interest
Anavekar 1979	Not design of interest
Anderson 1971	Not design of interest
Andreasen 1993	Not design of interest
Andrejak 1981	Not design of interest
Angelino 1985	Not design of interest
Antcliff 1972	Not design of interest
Antlitz 1967	Not design of interest
Antonicelli 1989	Not design of interest
Araoye 1978	Not design of interest
Arias 1979	Not design of interest
Aronow 1978	Not design of interest
Asbury 1980	Not design of interest
Asmar 1993	Not design of interest
Asmar 1995	Others
Asmar 1998	Not intervention of interest
Avanzi 1965	Not design of interest
Backhouse 1985	Not design of interest
Bagatin 1996	Not population of interest
Bagatin 1998	Not design of interest
Bagdade 1996	Not design of interest
Baker 1968	Not design of interest
Baptista 2019	Not population of interest
Baptista 2019 (2)	Not design of interest
Bariso 1970	Not design of interest
Baronchelli 1981	Others
Baroni 1985	Not design of interest
Basu 1977	Not design of interest
Bateman 1979	Not design of interest

Batey 1989	Not design of interest
Beevers 1983	Not design of interest
Beg 1979	Not design of interest
Beitelshees 2010	Not design of interest
Beling 1983	Not outcome of interest
Belleau 1982	Not design of interest
Bellini 1981	Not design of interest
Bellisi 1998	Not design of interest
Benedetto 1977	Not design of interest
Bengtsson 1972	Not intervention of interest
Bengtsson 1975	Not design of interest
Benz 1998	Not outcome of interest
Beretta-Piccoli 1977	Not design of interest
Berglund 1976	Not design of interest
Berglund 1986	Not design of interest
Bernik 2005	Not design of interest
Bhigjee 1983	Not design of interest
Bielmann 1991	Not design of interest
Bing 1981	Not design of interest
Blaufox 1992	Not design of interest
Blumenstein 2009	Not design of interest
Boehringer 1981	Not design of interest
Boike 1982	Not outcome of interest
Boissel 1995	Not design of interest
Bolli 1978	Not design of interest
Bonaduce 1981	Others
Borghi 1984	Not outcome of interest
Borhani 1996	Not design of interest
Borrero 1965	Not design of interest
Braendli 1978	Not design of interest
Brandão 2010	Not design of interest
Breithaupt-Grogler 1996	Not design of interest
Breithaupt-Grogler 2001	Not design of interest
Brilla 2000	Not design of interest
Brochez 1983	Not design of interest
Brooks 1977	Not design of interest
Brown 2000	Not design of interest
Brown 2016	Not design of interest
Bulpitt 2011	Not design of interest
Buscarini 1978	Not design of interest
Byam 1985	Not design of interest
Calvo 2000	Not design of interest
Cangiano 1974	Not design of interest
Cangiano 1976	Not design of interest
Cannon 1978	Not design of interest
Caporicci 1985	Not design of interest
Carlier 1981	Not design of interest

Carlsen 1990	Not intervention of interest
Carreta 1988	Not design of interest
Castillo Higuera 1977	Not design of interest
Cavicchi 1987	Not design of interest
Chalmers 1976	Not design of interest
Chalmers 1976 (1)	Not design of interest
Chalmers 1976 (2)	Not design of interest
Chalmers 1982	Not design of interest
Chalmers 1986	Not design of interest
Chang 1991	Not design of interest
Chapman 2014	Not design of interest
Charoenlarp 1978	Not design of interest
Chavez de Los Rios 1978	Not design of interest
Chazan 1981	Not design of interest
Cipollone 2004	Not design of interest
Clausen 1966	Not design of interest
Cocke 1977	Others
Comparison of the Antihypertensive Efficacy and Adverse...	Not design of interest
Consoli 1985	Others
Conte 1974	Not design of interest
Corder 1978	Not design of interest
Cranston 1965	Not design of interest
Crisp 1980	Not design of interest
Cushma 2008	Not design of interest
Cushman 1991	Not intervention of interest
Cushman 2000	Others
Cushman 2001	Not intervention of interest
Cushman 2012	Not design of interest
Cushman 2012 (2)	Others
da Cunha 1983	Not design of interest
Dahlof 1992	Others
Dahlof 1992 (2)	Not design of interest
Dahlof 1992 (3)	Others
Davis 1992	Not outcome of interest
Davis 1993	Not design of interest
De Carvalho 1980	Not intervention of interest
De Ciuzeis 2011	Not design of interest
De Giorgio 1982	Not design of interest
De Leeuw 1991	Not design of interest
De Leeuw 2004	Not design of interest
De Plaen 1981	Not design of interest
Dean 1971	Not design of interest
Deary 2002	Not design of interest
Degnbol 1971	Not design of interest
Degnbol 1973	Not design of interest
Del Nero Junior 1983	Not design of interest
Della Marchina 1981	Not design of interest

Demanet 1970	Not design of interest
Dequattro 1985	Not design of interest
Diehm 2011	Not intervention of interest
Diviits 1983	Not design of interest
Donnelly 1996	Not population of interest
Dornhorst 1985	Not design of interest
Dorow 1988	Not outcome of interest
Dorresteiijn 2013	Not design of interest
Douglas 1974	Not design of interest
Drayer 1975	Not design of interest
Duckett 1990	Not design of interest
Duprez 2011	Not design of interest
Dusing 1977	Not design of interest
Eames 2005	Not design of interest
Ekbom 1992	Not design of interest
El Mehairy 1981	Not design of interest
Eldridge 1984	Not design of interest
Eliasson 1986	Not design of interest
Elisaf 1999	Not design of interest
Elliott 1991	Not design of interest
Emmanuel 2020	Not population of interest
Emmerson 1982	Not design of interest
Erwtelman 1984	Not intervention of interest
Esch 1976	Not design of interest
Espiner 1977	Not design of interest
Fagard 1976	Not design of interest
Fagard 1976 (2)	Not design of interest
Fagard 1997	Not design of interest
Falch 1981	Not design of interest
Farsang 1987	Not intervention of interest
Ferguson 1980	Not design of interest
Ferguson 1982	Not design of interest
Ferrara 1984	Others
Ferrara 1985	Not design of interest
Fidel 1988	Not design of interest
Finnerty 1976	Others
Flack 1993	Not design of interest
Fletcher 1968	Not design of interest
Fogari 1984	Not design of interest
Fogari 1995	Not design of interest
Fonseca 2015	Not design of interest
Forrest 1973	Not design of interest
Forrest 1981	Not population of interest
Forrest 1982	Others
Fraser 1978	Not design of interest
Freis 1979	Not intervention of interest
Freis 1982	Not design of interest

Freis 1983	Not outcome of interest
Freis 1991	Not design of interest
Friis 1986	Not design of interest
Frishman 1985	Not design of interest
Frishman 1987	Not intervention of interest
Froment 1969	Not design of interest
Froment 1971	Not design of interest
Fuchs 2016	Not intervention of interest
Fuchs 2018	Not intervention of interest
Furrer 1978	Not design of interest
Gabriel 1983	Not design of interest
Gall 1992	Not design of interest
Galletti 1987	Not design of interest
Galloway 1974	Not design of interest
Galzerano 2004	Not contribute to interest analysis
Gargano 1963	Not design of interest
Garrett 1984	Others
George 1983	Not outcome of interest
Gerber 1985	Not design of interest
Ghosh 1985	Not design of interest
Gibelin 1986	Not design of interest
Giles 1992	Not design of interest
Girerd 1998	Not intervention of interest
Girerd 2006	Not outcome of interest
Girvin 1998	Not design of interest
Girvin 2004	Not design of interest
Giudicelli 1987	Not design of interest
Gleerup 1996	Not design of interest
Glezer 1990	Not design of interest
Glezer 1990 (1)	Not design of interest
Glorioso 1993	Not outcome of interest
Gluck 1978	Not design of interest
González-Juanatey 1992	Not design of interest
Gosfield 1965	Not design of interest
Granados 1994	Not design of interest
Grell 1984	Not design of interest
Grenfell 1963	Not design of interest
Grimm 1981	Not design of interest
Grimm 1996	Not intervention of interest
Grunfeld 1990	Not intervention of interest
Grupillo 1980	Not design of interest
Guerrero 2008	Not intervention of interest
Guevara 1978	Not design of interest
Haenni 1996	Others
Haenni 2002	Others
Hajjar 2012	Not intervention of interest
Hajjar 2013	Not design of interest

Hallin 1983	Not intervention of interest
Hansson 1999	Not design of interest
Harvald 1979	Not design of interest
Hatt 1975	Not intervention of interest
Helgeland 1979	Not design of interest
Hayduk 1974	Not design of interest
Helgeland 1979	Not design of interest
Henning 1980	Not intervention of interest
Hergueta 1989	Not design of interest
Herlitz 1994	Others
Herrick 1989	Not design of interest
Hiltunen 2007	Not outcome of interest
Hintzen 1973	Not design of interest
Hobbs 1964	Not outcome of interest
Hobbs 2005	Not intervention of interest
Holland 1979	Not design of interest
Holland 1979 (2)	Not design of interest
Holland 1983	Not design of interest
Holland 1988	Not design of interest
Honda 1999	Not design of interest
Honoré 1987	Not intervention of interest
Hort 1991	Others
Horvath 1979	Not design of interest
Hua 1976	Not design of interest
Huang 1979	Not intervention of interest
Huangfu 2015	Not design of interest
Hubert 1974	Not design of interest
Hulley 1985	Not intervention of interest
Hydrochlorothiazide and bendroflumethiazide in low doses...	Others
Ibsen 1978	Not design of interest
Ikram 1986	Not design of interest
Inouye 1984	Not design of interest
Jaatela 1976	Not design of interest
Jaattela 1972	Not design of interest
Jaattela 1979	Not design of interest
Jaattela 1979 (2)	Not design of interest
Jaattela 1981	Not design of interest
Jackson 1986	Not design of interest
Jaffe 1982	Not design of interest
Jamil 1971	Not design of interest
Jansen 1988	Others
Jarvis 2015	Not design of interest
Jiang 2005	Others
Joannides 2008	Not design of interest
Johnson 1961	Not outcome of interest
Johnson 1986	Not design of interest
Johnson 1997	Not design of interest

Johnston 1991	Not design of interest
Jones 1993	Not design of interest
Jounela 1985	Not design of interest
Juel-Jensen 1987	Not intervention of interest
Kageyama 1994	Not design of interest
Kalikzi 2017	Not intervention of interest
Kampffmeyer 1968	Not design of interest
Karashima 1979	Not design of interest
Karatzas 1979	Not intervention of interest
Karlberg 1976	Not design of interest
Khan 1981	Not design of interest
Kithas 2010	Not contribute to interest analysis
Klingbeil 2002	Not design of interest
Kobayashi 1992	Not design of interest
Kochar 1973	Not design of interest
Koenig 1991	Not design of interest
Kohner 1971	Not design of interest
Kohvakka 1986	Not design of interest
Kojima 1985	Not design of interest
Kolloch 1979	Not design of interest
Koskelainen 1985	Not design of interest
Kostka-Jeziorny 2011	Not design of interest
Kraus 1966	Not outcome of interest
Krogsgaard 1976	Not design of interest
Kronig 1987	Not intervention of interest
Kubik 1981	Not design of interest
Kumar 1984	Not design of interest
Lacourciere 1988	Not design of interest
Lacourciere 1989	Not intervention of interest
Lacourciere 1994 (3)	Not design of interest
Lacourciere 1995	Not intervention of interest
Lacourciere 2003	Not design of interest
Lakshman 1999	Not design of interest
Langford 1991	Not design of interest
Laplante 1978	Not design of interest
Lasser 1989	Not design of interest
Leary 1990	Not intervention of interest
Lechi 1979	Not design of interest
Lechi 1982	Not design of interest
Lehtonen 1987	Not design of interest
Leng-Levy 1972	Not design of interest
Lentini 1980	Not design of interest
Leonetti 1991 (2)	Not design of interest
Leonetti 2004	Not design of interest
Leren 1982	Not design of interest
Letzel 1990	Not design of interest
Levine 1995	Not design of interest

Levitt 1979	Not design of interest
Licht 1983	Not design of interest
Lind 1994	Not design of interest
Lindholm 2004	Not intervention of interest
Lindroos 1984	Not design of interest
Lischner 1987	Not outcome of interest
Luft 1991	Not design of interest
Luna 1979	Not design of interest
Lundgren 1990	Not design of interest
Lund-Johansen 1970	Not design of interest
Lund-Johansen 1971	Not design of interest
Lund-Johansen 1973	Not design of interest
Lutterodt 1980	Not design of interest
MacDonald 2017	Not design of interest
Mace 1985	Not design of interest
MacGregor 1982	Not design of interest
Mackay 1969	Not design of interest
Madias 1984	Not design of interest
Madkour 1995	Not design of interest
Madkour 1996	Not design of interest
Mahmud 2007	Not design of interest
Malacco 2003	Not design of interest
Mancia 2000	Not design of interest
Mann 1996	Not design of interest
Mann 2002	Not design of interest
Manzur 2018	Not design of interest
Maronde 1983	Not contribute to interest analysis
Martinez de La Iglesia 1990	Not design of interest
Masoni 1982	Not design of interest
Massie 1986	Not design of interest
Massie 1988	Not design of interest
Materson 1974	Not design of interest
Materson 1978	Not contribute to interest analysis
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Materson 1995	Not intervention of interest
Maus 1978	Not design of interest
Maxwell 1985	Not design of interest
McCorvey 1993	Not design of interest
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Meaney 2015	Not design of interest
Menard 1988	Not design of interest
Mengesha 2018	Not design of interest
Mengozi 2021	Not design of interest
Merril 1987	Not outcome of interest
Messerli 1989	Not design of interest
Metelitsa 1995	Not design of interest

Metelitsa 1996	Not design of interest
Meyer 1972	Not design of interest
Meyer-Sabellek 1985	Not design of interest
Meza 1989	Not design of interest
Middeke 1987	Not design of interest
Millia 2006	Not design of interest
Milliez 1975	Not intervention of interest
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Muiesan 1985	Not design of interest
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Myers 1983	Not intervention of interest
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Neuvonen 1978	Not intervention of interest
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Obel 1989	Not design of interest
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Ohta 2020	Not design of interest
Oigman 1987	Not design of interest

Okada 2017	Not design of interest
Okun 1978	Not intervention of interest
Olamoyehun 2017	Not design of interest
Olivan Martinez 1993	Not population of interest
Oparil 1999	Not intervention of interest
Otterstad 1992	Others
Palming 2011	Not outcome of interest
Papademetriou 1994	Not design of interest
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Pareek 2016	Others
Parijs 1973	Not intervention of interest
Parkes 1969	Not design of interest
Parsons 1970	Not design of interest
Pasotti 1981	Not design of interest
Passa 1989	Not population of interest
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Pinelli 1964	Not design of interest
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Plante 1988	Not design of interest
Polak 1978	Not design of interest
Pompeo 1994	Not design of interest
Ponticelli 1979	Not population of interest
Pordy 1994	Not contribute to interest analysis
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Posadzy-Malaczynska 2019	Not design of interest
Prince 1988	Not design of interest
Propranolol or Hydrochlorothiazide Alone for the...	Not outcome of interest
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Ragnarsson 1987	Not design of interest

Raheja 2012	Not design of interest
Rajzer 2012	Not design of interest
Rakugi 2018	Not design of interest
Ram 1981	Not design of interest
Ram 1981 (2)	Not design of interest
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Raskin 1999	Not design of interest
Reaven 1995	Not design of interest
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Salonen 1982	Not design of interest
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Sasaki 1992	Not design of interest
Sato 2010	Not intervention of interest
Satta 1985	Not design of interest
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Scharf 1989	Not design of interest
Schirger 1977	Not design of interest
Schmidt 2001	Not intervention of interest
Schmieder 1983	Not design of interest
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Schram 2005	Not intervention of interest
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Schubert 1968	Not design of interest
Schuna 1985	Not population of interest
Seedat 1973	Not design of interest

Seedat 1980	Not intervention of interest
Seedat 1980 (2)	Not intervention of interest
Semenkin 2016	Not design of interest
Semplicini 1986	Not intervention of interest
Semplicini 1993	Others
Senior 1993 (1)	Not contribute to interest analysis
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Senior 1993 (3)	Not contribute to interest analysis
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Senn 1988	Not design of interest
Serbano 1970	Not design of interest
Shahinfar 1999	Not intervention of interest
Shapiro 1987	Not intervention of interest
Sheridan 1999	Not design of interest
Siegel 1992	Not design of interest
Silva 1977	Not design of interest
Smith 1964	Not design of interest
Smith 1966	Not outcome of interest
Smith 1986	Others
Smith 2012	Not design of interest
Spach 1978	Not design of interest
Spence 1985	Not intervention of interest
Spence 2000	Others
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Stewart 1985	Not design of interest
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Sung 1971	Not design of interest
Suonsyrja 2009	Not design of interest
Suzuki 1988	Not design of interest
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Tedesco 1998	Not design of interest

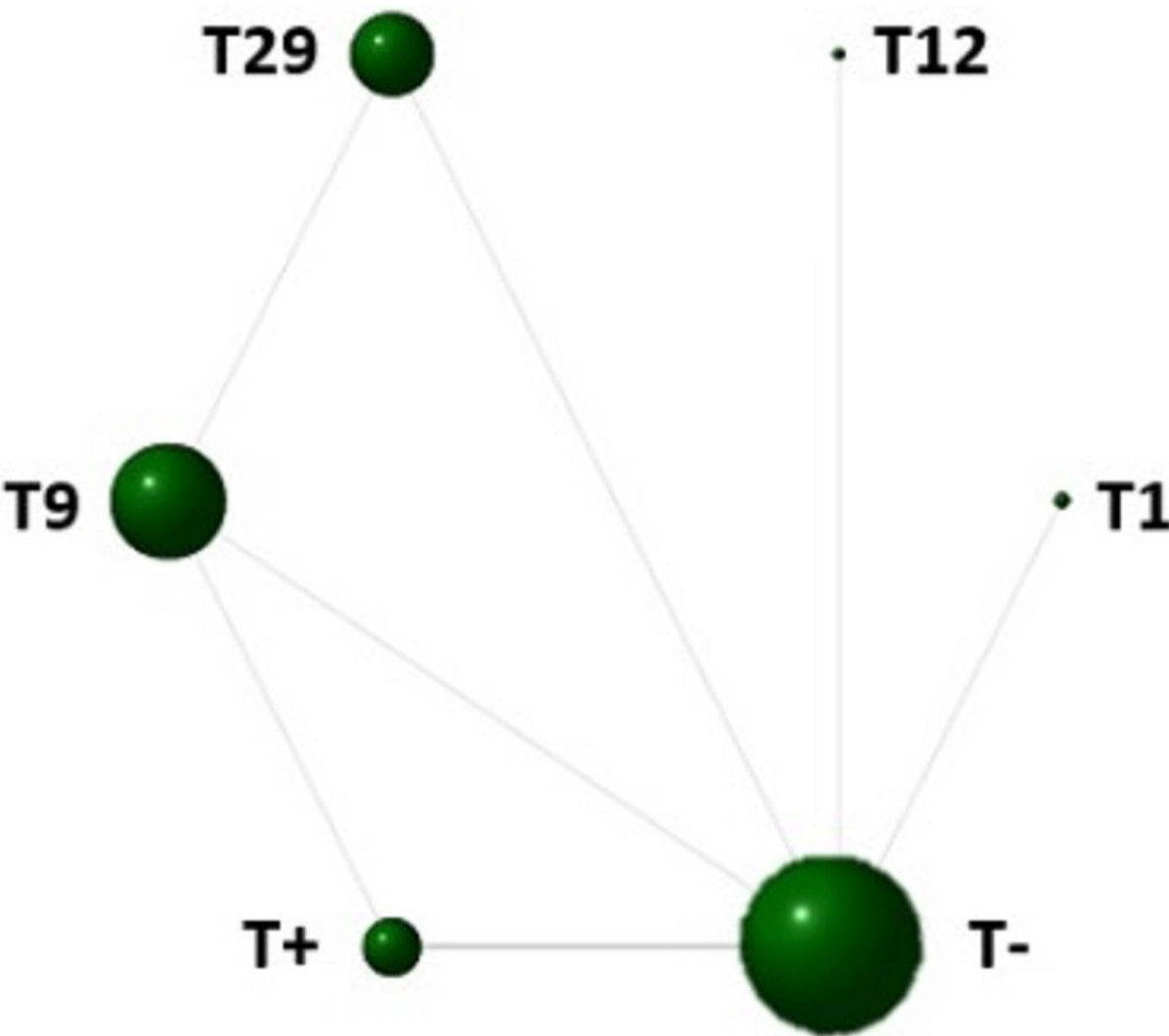
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Turner 1977	Not design of interest
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Vaidya 1971	Not design of interest
Vakilzadeh 2015	Not design of interest
Valmin 1975	Not intervention of interest
Van Brummelen 1979	Not design of interest
van der Veur 1984	Not design of interest
Van Hoose 1976	Not design of interest
van Soeren 1980	Not design of interest
Vanmolkot 1999	Not design of interest
Vaughan 1973	Not design of interest
Vellacot 1987	Not population of interest
Verhiest 1989	Not population of interest
Verho 1985	Others
Verho 1987	Others
Verho 1988	Others
Vetter 1973	Not design of interest
Vlasses 1983	Not design of interest
Vogt 2005	Not design of interest
Volta 1986	Not population of interest
Waal-Manning 1979	Not design of interest
Walker 1980	Not intervention of interest
Walter 1977	Not design of interest
Ward 1977	Not design of interest
Wassertheil-Smoller 1991	Not design of interest
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Webber 1977	Not design of interest
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Weber 1984	Not design of interest
Weidmann 1977	Not design of interest
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Weidmann 1983	Not design of interest
Weinberger 1985	Not design of interest
Weinberger 1987	Not design of interest
Weingarten 1976	Not design of interest
Weir 1998	Not contribute to interest analysis
Weisser 1992	Not design of interest
Well-being and its measurement 1991	Not intervention of interest
Whaley-Connel 2012	Not design of interest
Wheatley 1975	Not design of interest
White 2008	Not intervention of interest
Wiggman 1999	Not contribute to interest analysis
Wilcox 1978	Not design of interest

Wilhelmsen 1981	Not design of interest
Williams 1988	Not design of interest
Wilson 1963	Not design of interest
Winchester 1980	Others
Winer 1968	Not design of interest
Wing 1982	Not intervention of interest
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Witchitz 1975	Not intervention of interest
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Wolf 1966	Not intervention of interest
Wollam 1983	Not design of interest
Wong 1981	Not design of interest
Wray 2010	Not design of interest
Wylie-Rosett 1993	Not design of interest
Yamada 1979	Not design of interest
Yodfat 1994	Not contribute to interest analysis
Zakopoulos 1997	Not design of interest
Zanchetti 1998	Not design of interest
Zanchetti 2004	Not design of interest
Zanella 1996	Not design of interest
Zannad 1993	Not design of interest
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Zawada 1987	Not design of interest
Zdichynec 1977	Not design of interest
Zhang 2015	Not design of interest

Table S3. Additional characteristics of included studies

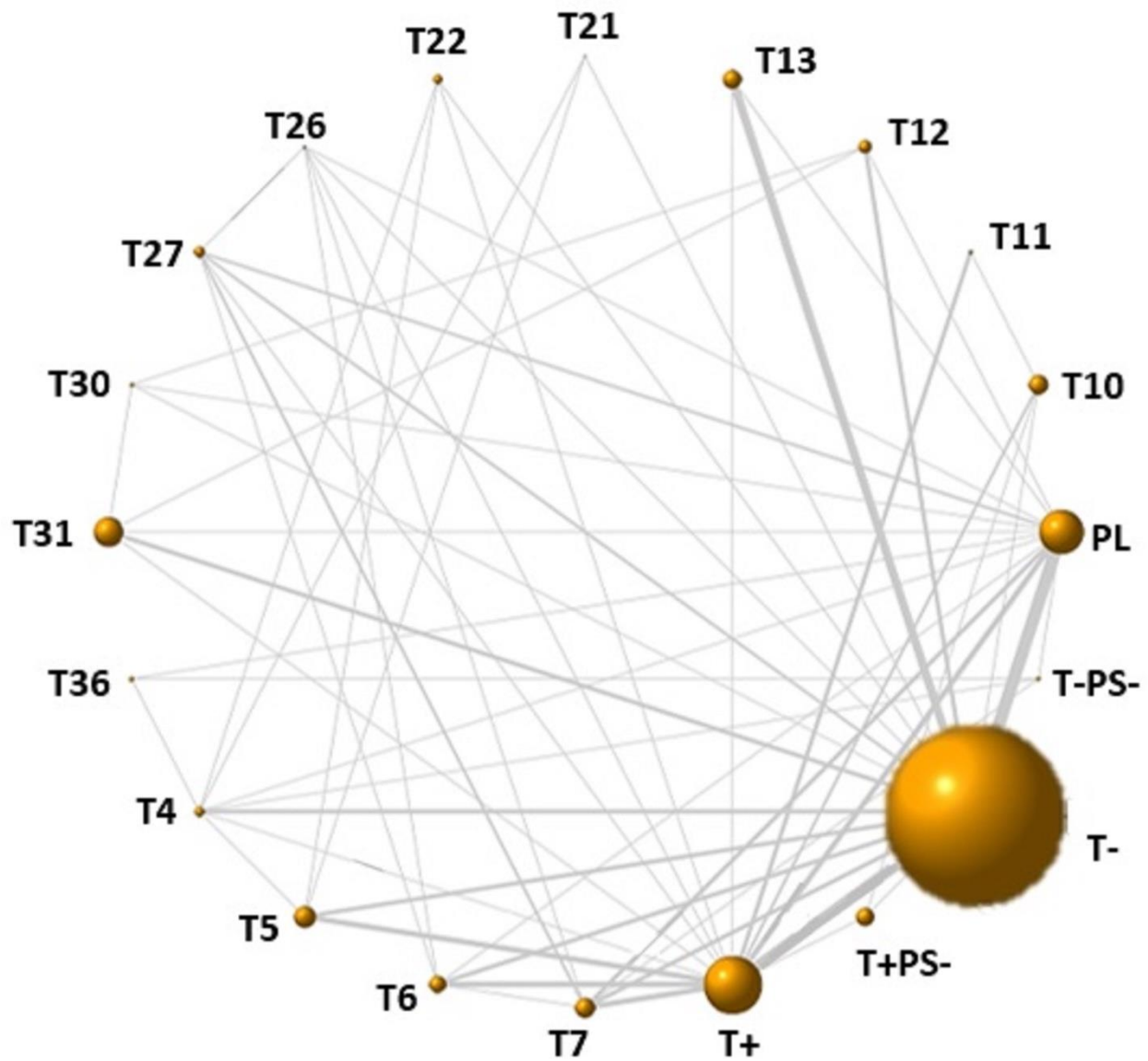
Drugs used in studies (N = 276 studies)	<i>Thiazide Diuretics</i> Hydrochlorothiazide (N = 180) Chlorthalidone (N = 27) Indapamide (N = 23) Bendroflumethiazide (N = 13) Cyclopenthiazide (N = 2) Mefruside (N = 3) Metolazone (N = 2) Chlorothiazide (N = 2) Butizide (N = 1) Methyclothiazide (N = 1) <i>Thiazide + Potassium-Sparing Diuretics</i> Hydrochlorothiazide + Amiloride (N = 22) Hydrochlorothiazide + Triamterene (N = 9) Chlorthalidone + Triamterene (N = 2) Bemetizide + Triamterene (N = 2) Hydrochlorothiazide + Spironolactone (N = 1) Hydroflumethiazide + Spironolactone (N = 1) Chlorthalidone + Amiloride (N = 1) Butizide + Spironolactone (N = 1)
Number of participants randomized, baseline (N = 276 studies)	N=58,807
Age (mean) (N = 244 studies)	55 years (35-80)
Sex (N = 276 studies)	55% Male 45% Female
Follow-up (mean) (N = 276 studies)	10 weeks (Overall) 3-10 weeks (N=174) 12-21 weeks (N=78) 24-40 weeks (N=22) 52 weeks (N=2)
Study Design	Parallel (N=224) Crossover (N=37) Factorial (N=15)
Outcomes	Systolic BP (N=273) Potassium (123) Uric Acid (N=91) Glucose (N=78) Total Cholesterol (N=63) HDL -C (N=31) LDL-C (N=23) Triglycerides (N=43) HbA1c (N=9)

Figure S1. Network meta-analysis of eligible comparisons for HbA1c.



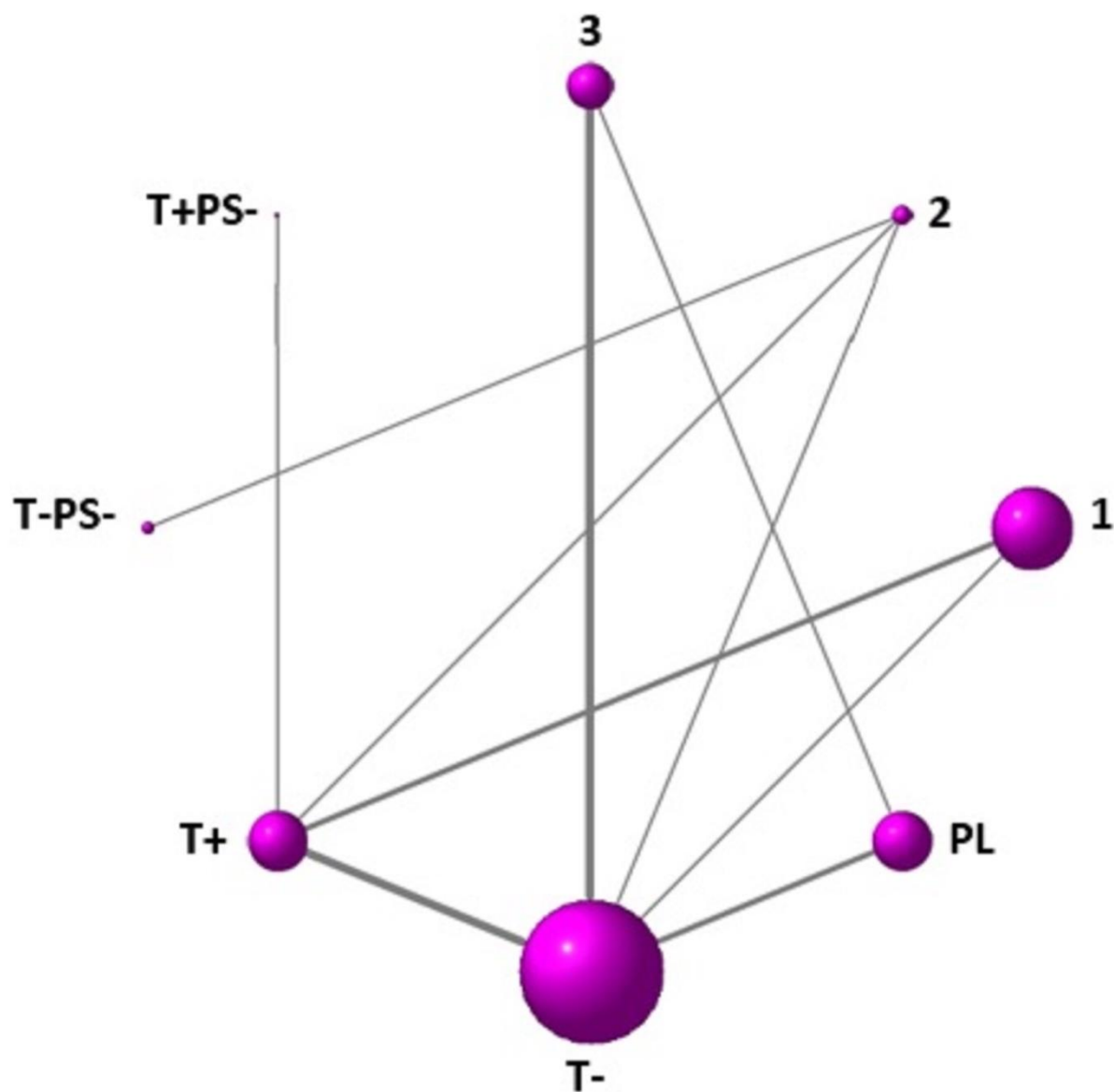
T1: AB+; T9: ARB+; T12: ACEi-; T29: TARB+.

Figure S2. Network meta-analysis of eligible comparisons for total cholesterol.



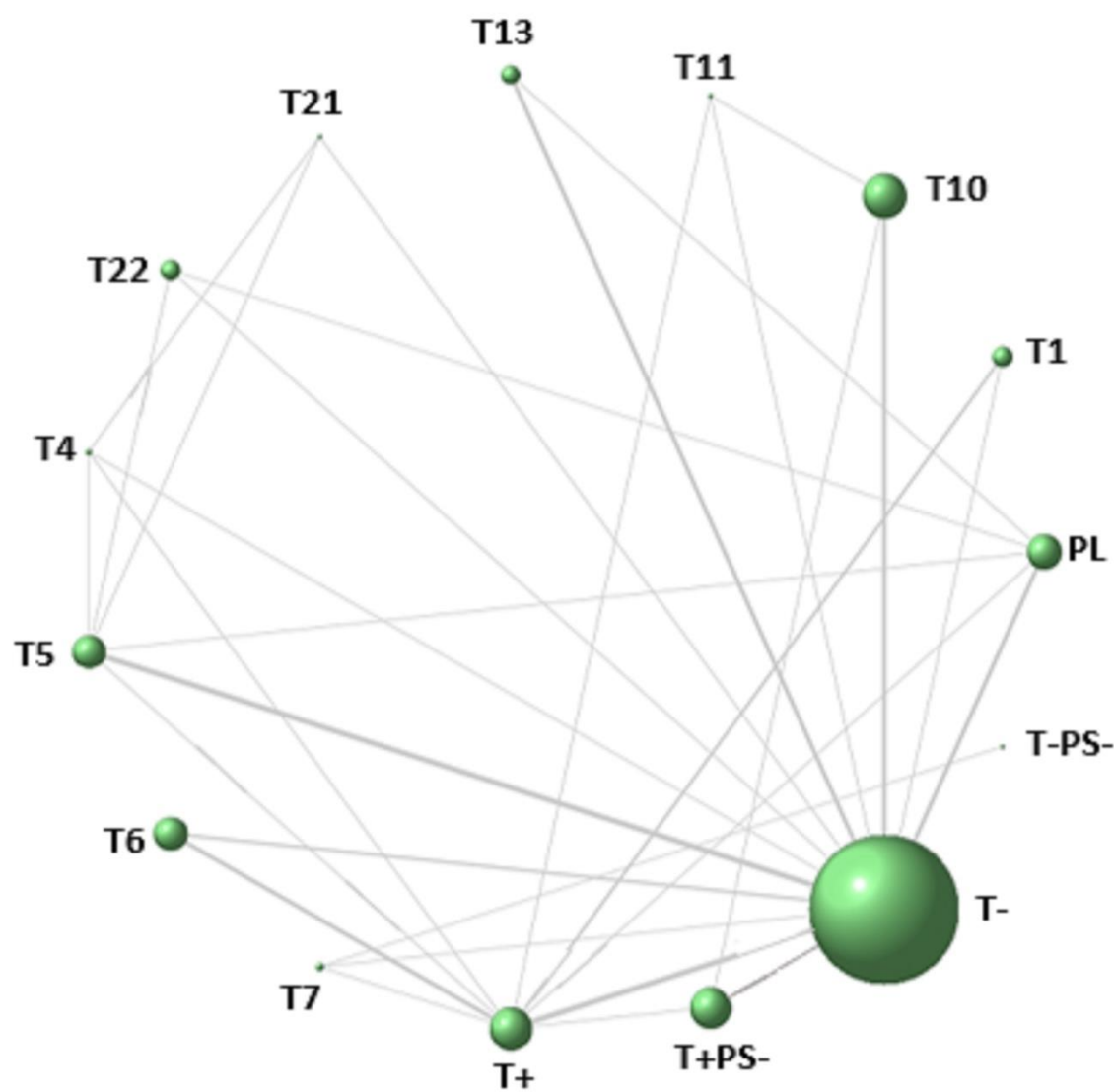
T4: BB-; T5: BB+; T6: CCB-; T7: CCB+; T10: LD-; T11: LD+; T12: ACEi-; T13: ACEi+; T21: TBB-; T22: TBB+; T26: TCCB-; T27: TCCB+; T30: TACEi-; T31: TACEi+; T36: TPSBB-.

Figure S3. Network meta-analysis of eligible comparisons for LDL-C.



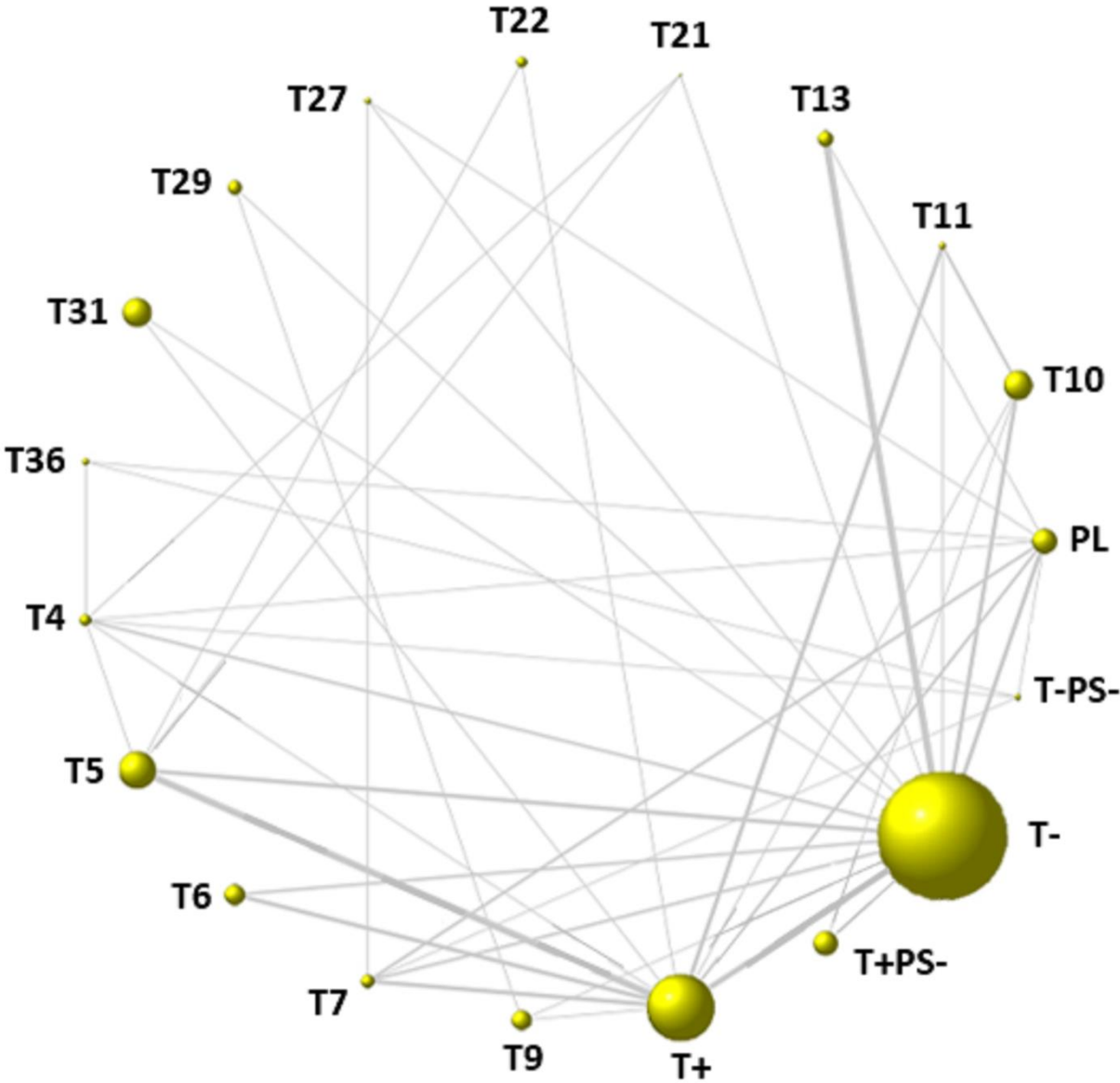
T1: AB+; T2: AARA-; T3: AARA+.

Figure S4. Network meta-analysis of eligible comparisons for HDL-C.



T1: AB+; T4: BB-; T5: BB+; T6: CCB-; T7: CCB+; T10: LD-; T11: LD+; T13: ACEi+; T21: TBB-; T22: TBB+.

Figure S5. Network meta-analysis of eligible comparisons for triglycerides.



T4: BB-; T5: BB+; T6: CCB-; T7: CCB+; T9: ARB+; T10: LD-; T11: LD+; T13: ACEi+; T21: TBB-; T22: TBB+; T27: TCCB+; T29: TARB+; T31: TACEi+; T36: TPSBB-.

Figure S6A. Forest plot for pairwise meta-analyses (Systolic blood pressure).

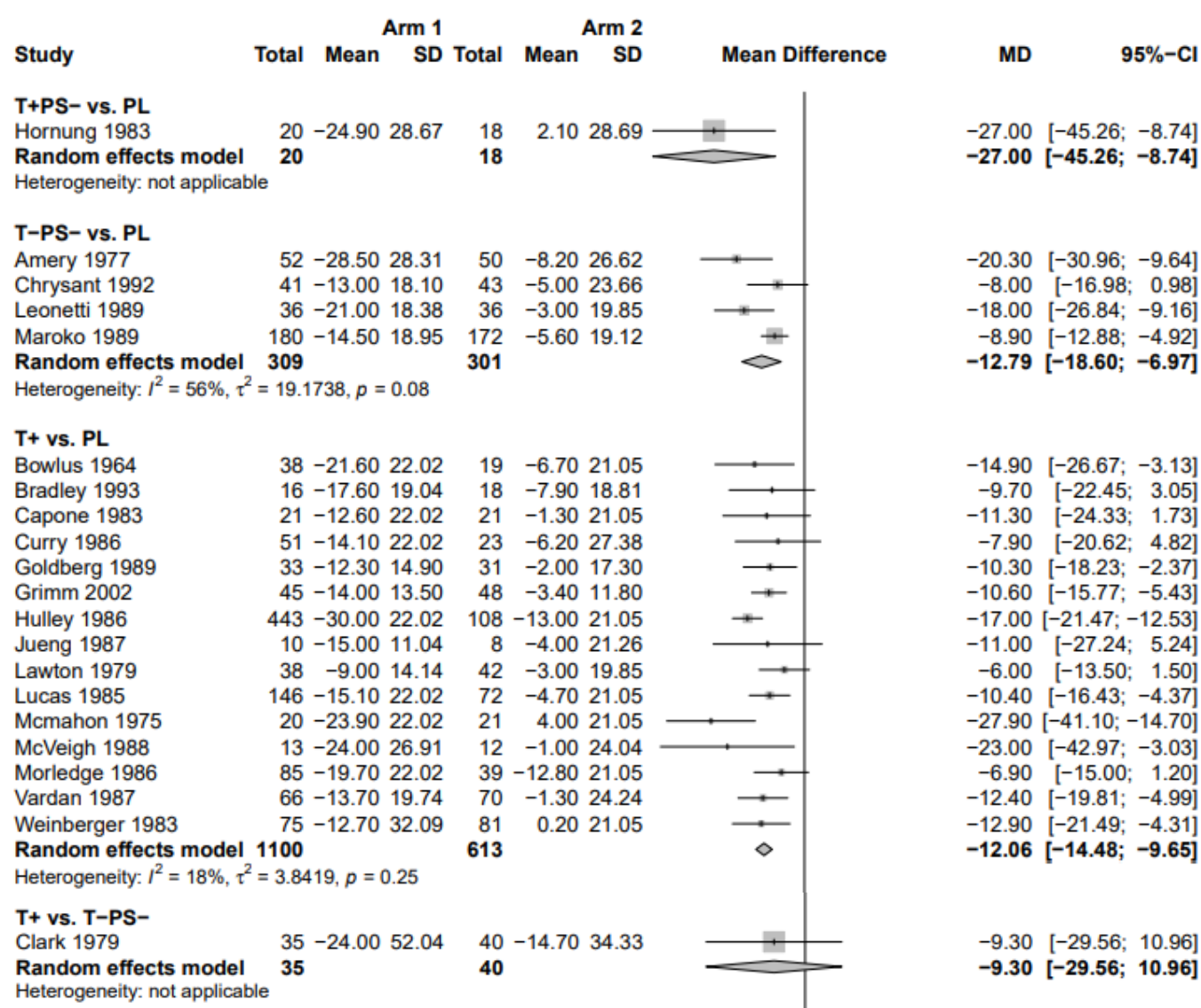


Figure S6B. Forest plot for pairwise meta-analyses (Systolic blood pressure).

T- vs. PL

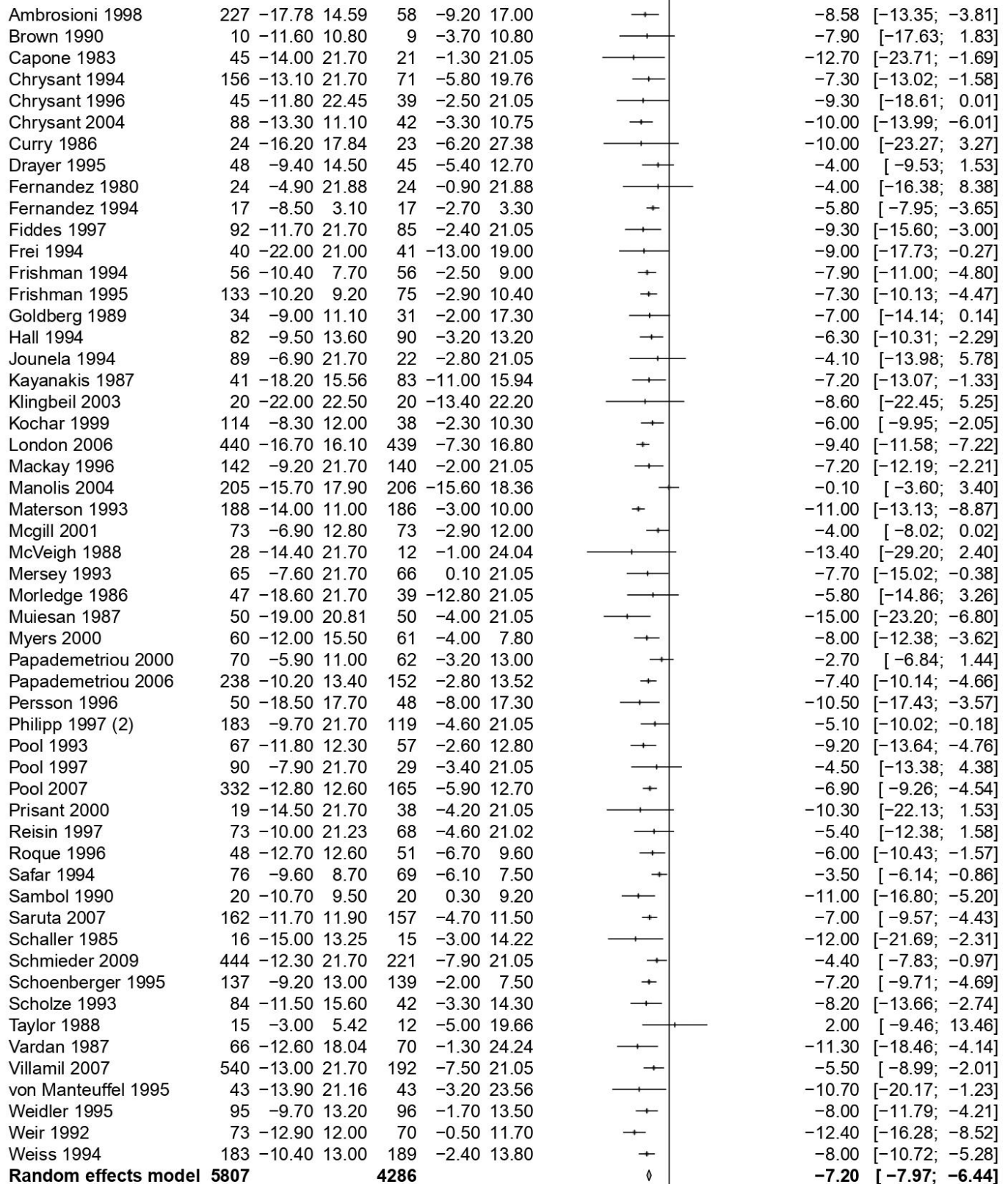


Figure S6C. Forest plot for pairwise meta-analyses (Systolic blood pressure).

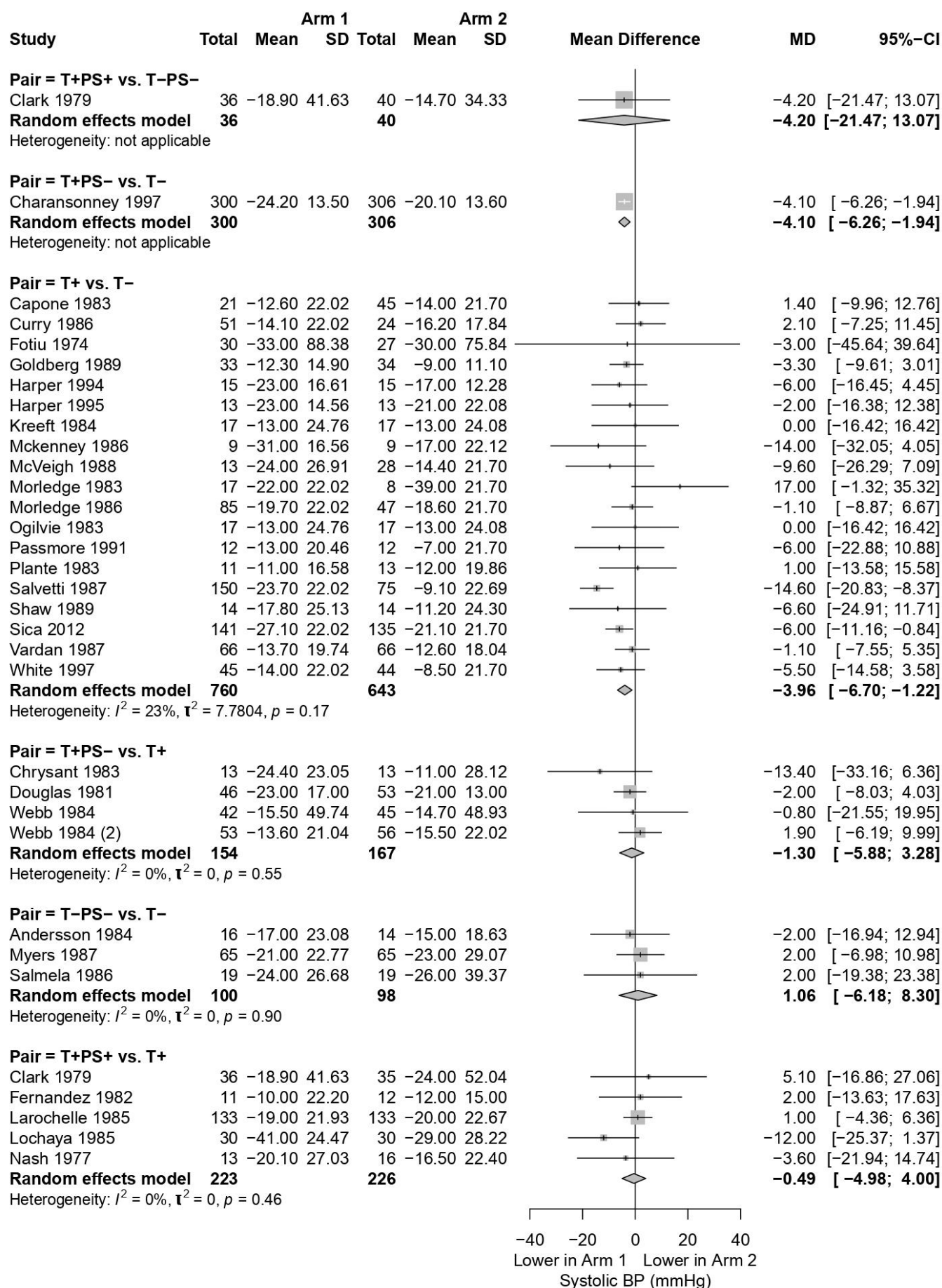


Figure S6D. Forest plot for pairwise meta-analyses (Systolic blood pressure).

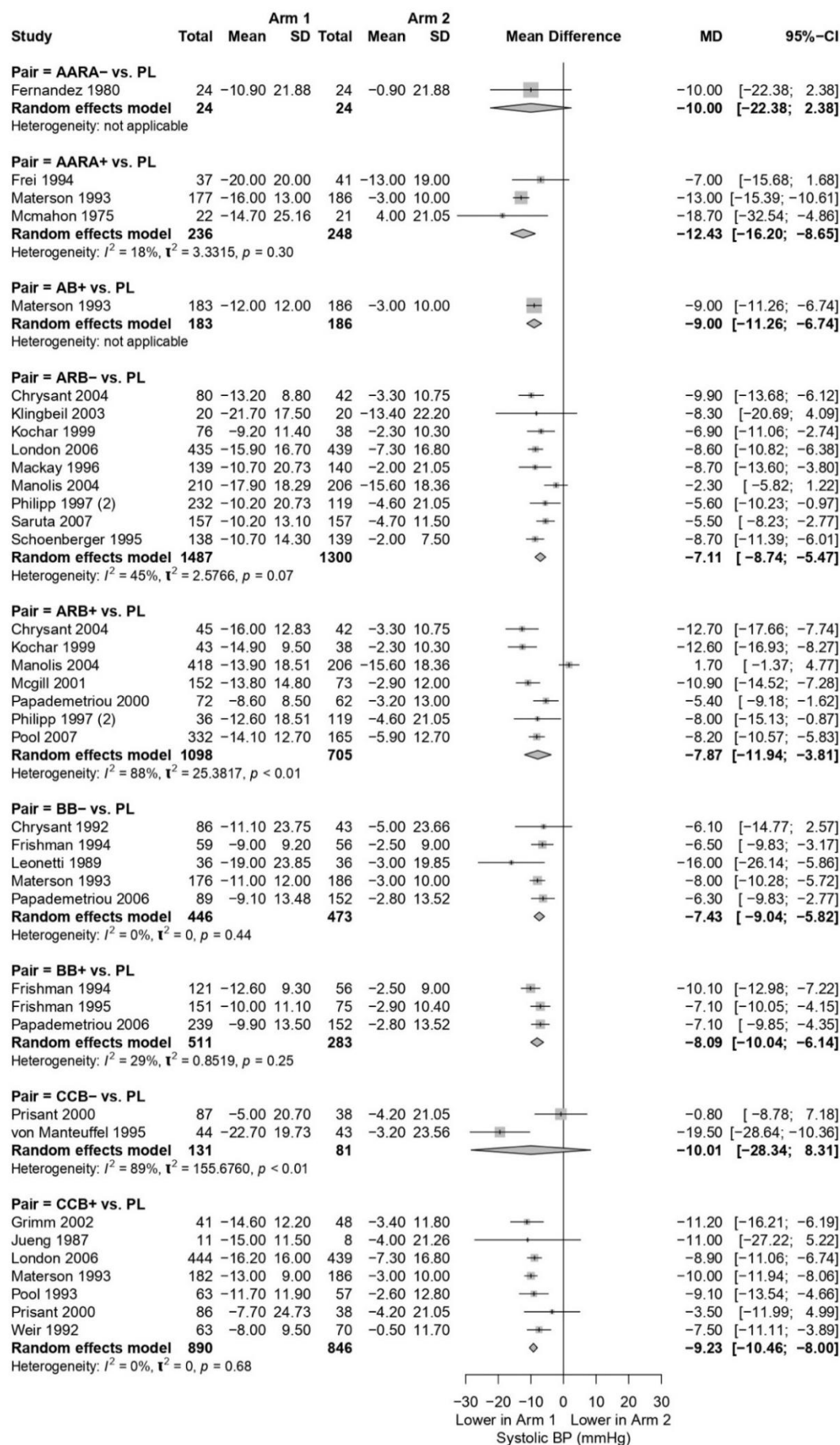


Figure S6E. Forest plot for pairwise meta-analyses (Systolic blood pressure).

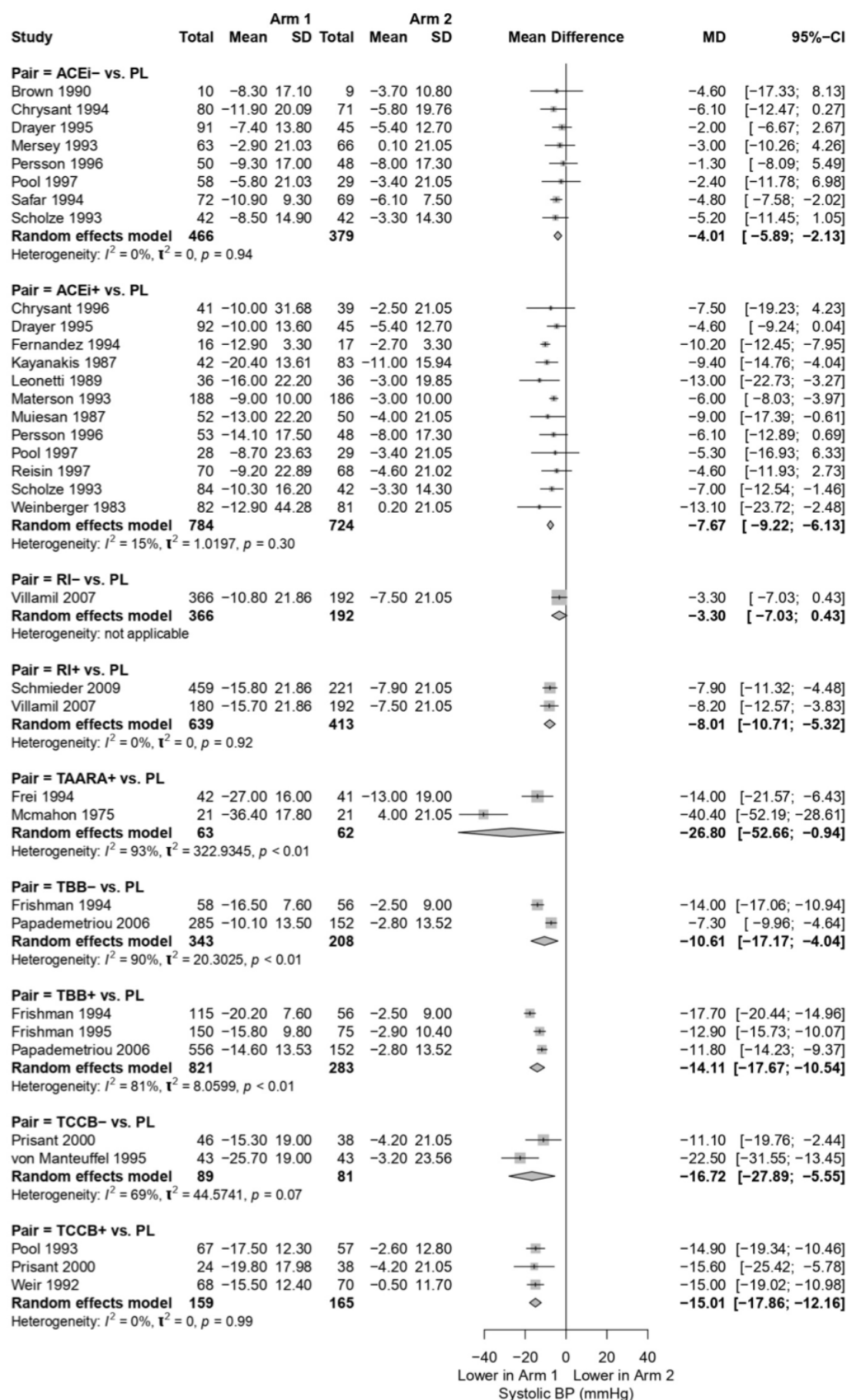


Figure S6F. Forest plot for pairwise meta-analyses (Systolic blood pressure).

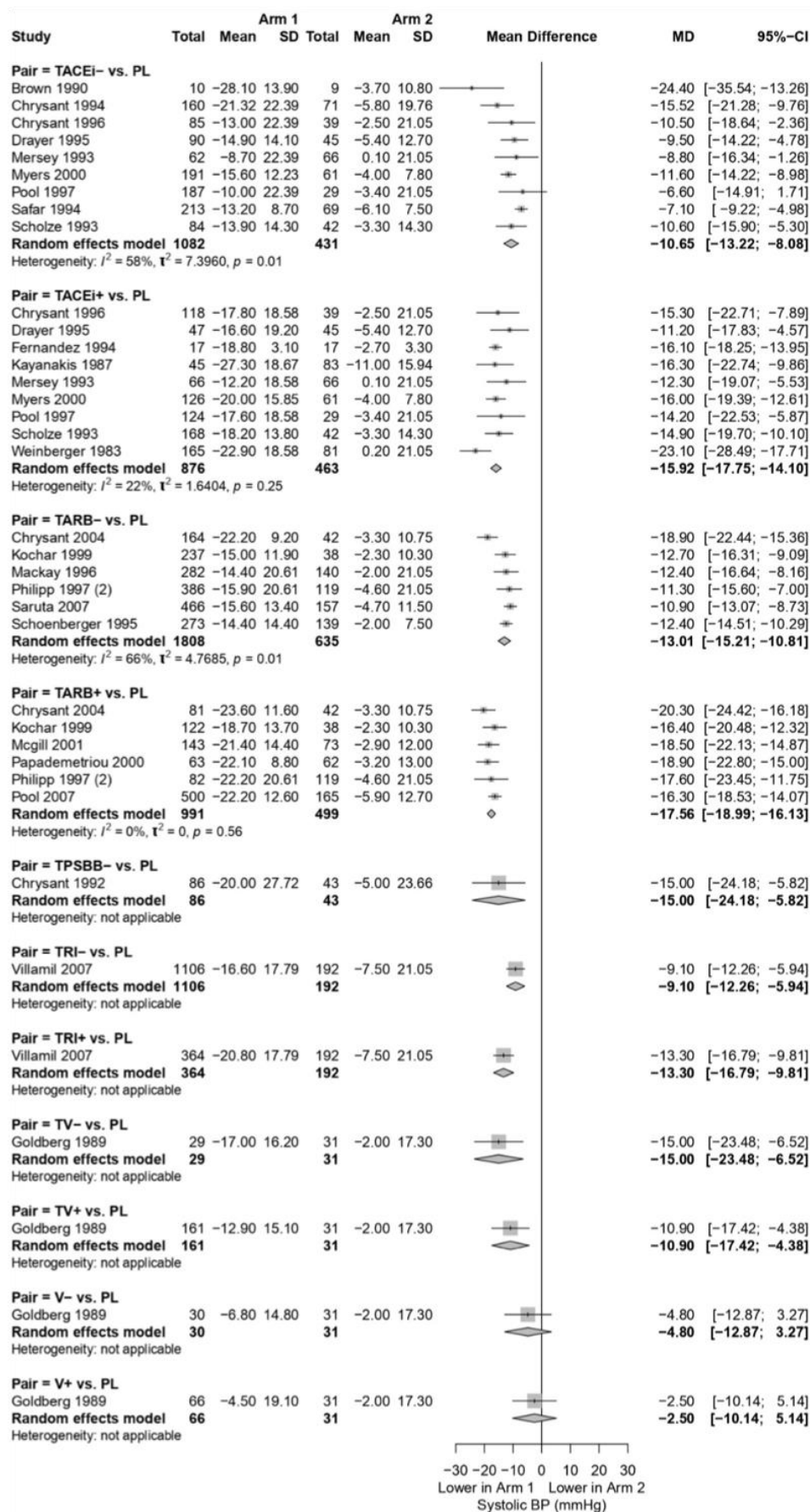


Figure S6G. Forest plot for pairwise meta-analyses (Systolic blood pressure).

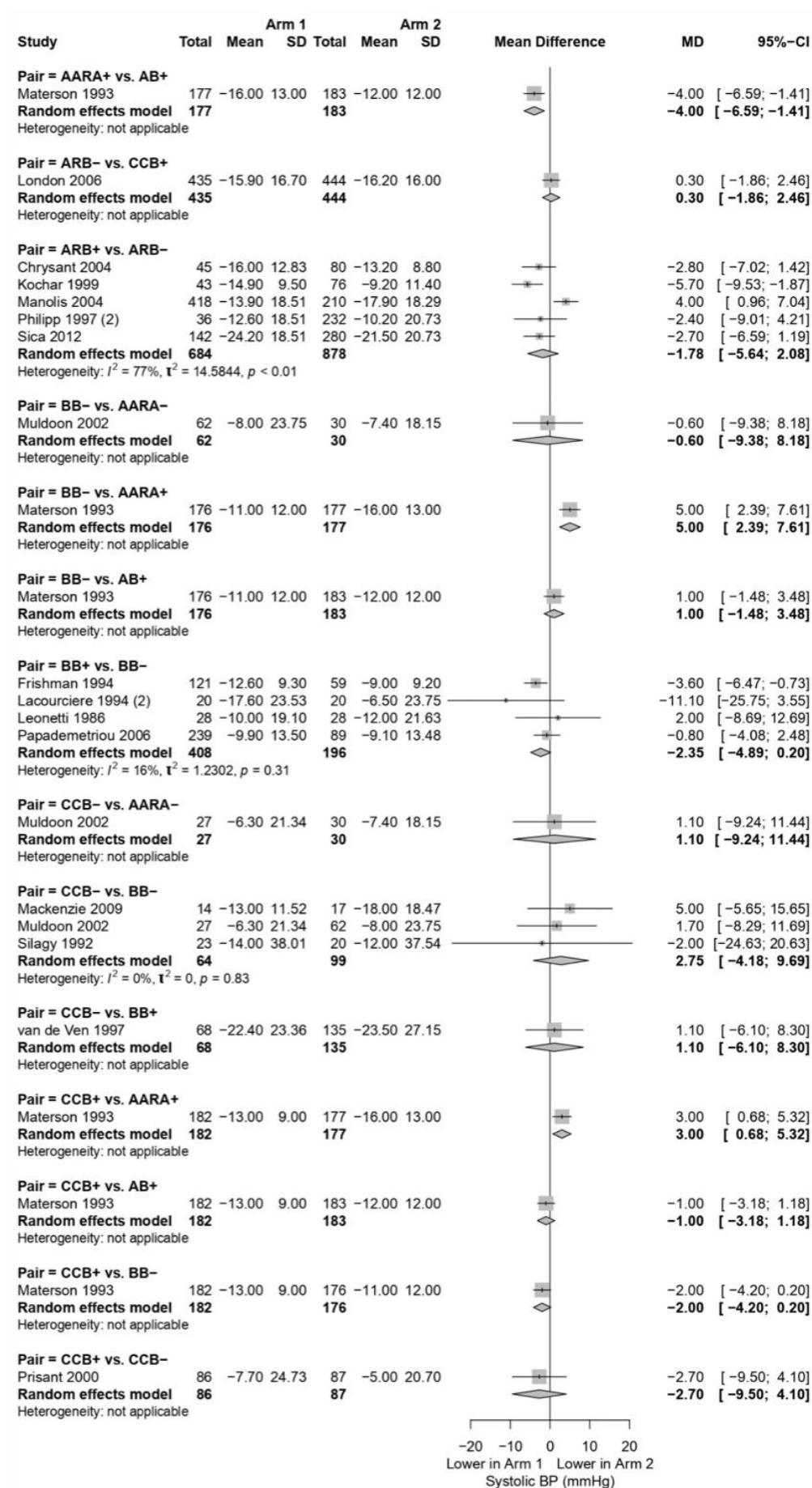


Figure S6H. Forest plot for pairwise meta-analyses (Systolic blood pressure).

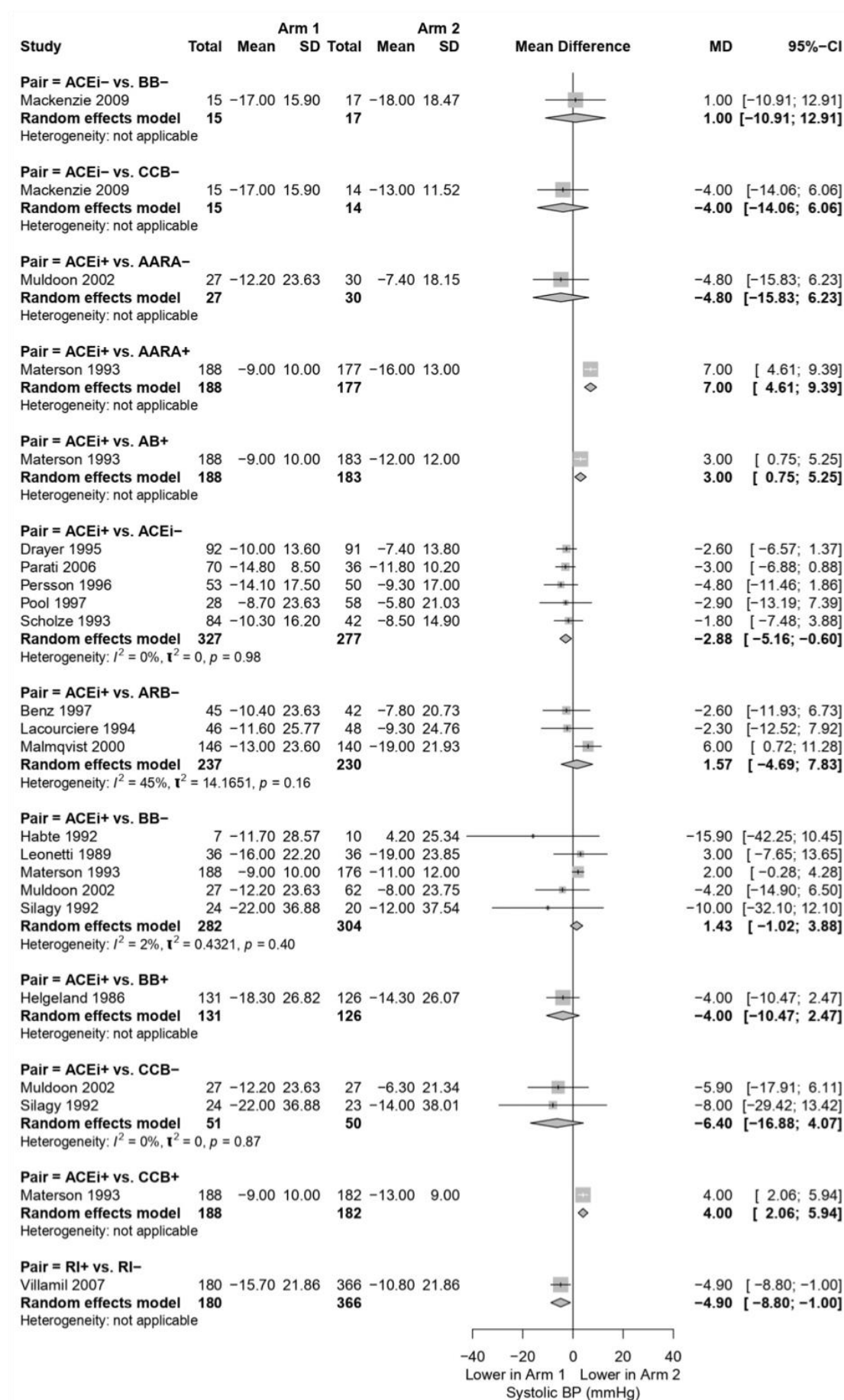


Figure S6I. Forest plot for pairwise meta-analyses (Systolic blood pressure).

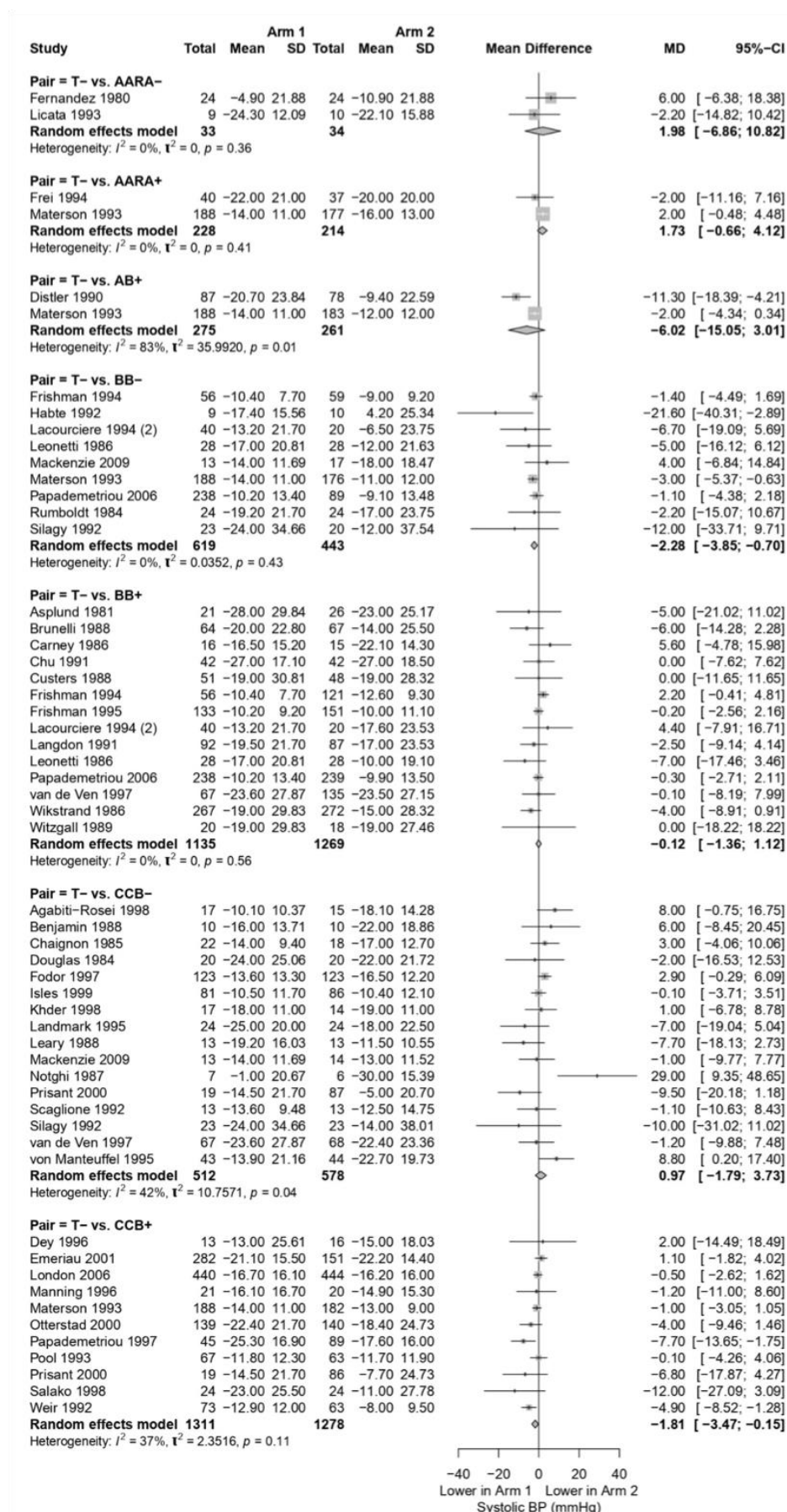


Figure S6J. Forest plot for pairwise meta-analyses (Systolic blood pressure).

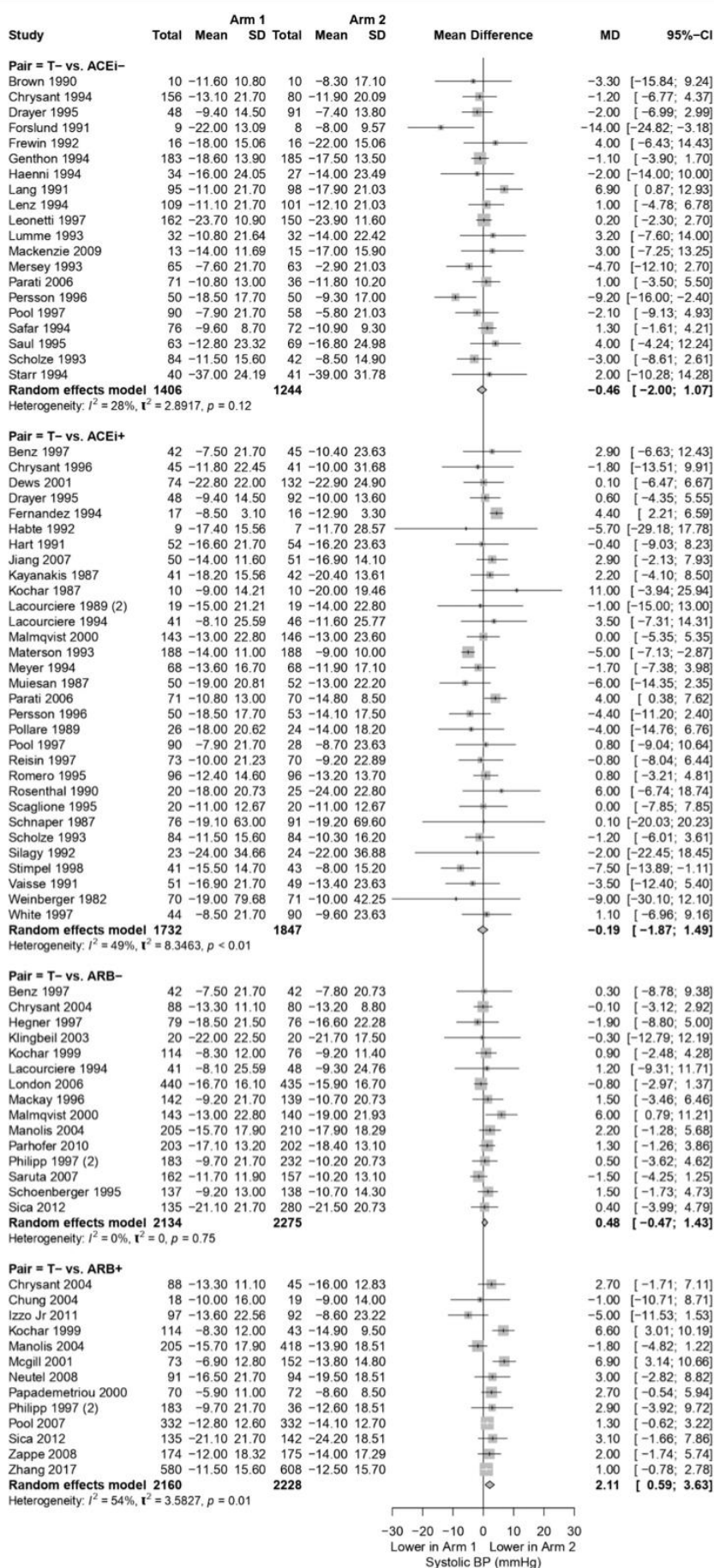


Figure S6K. Forest plot for pairwise meta-analyses (Systolic blood pressure).

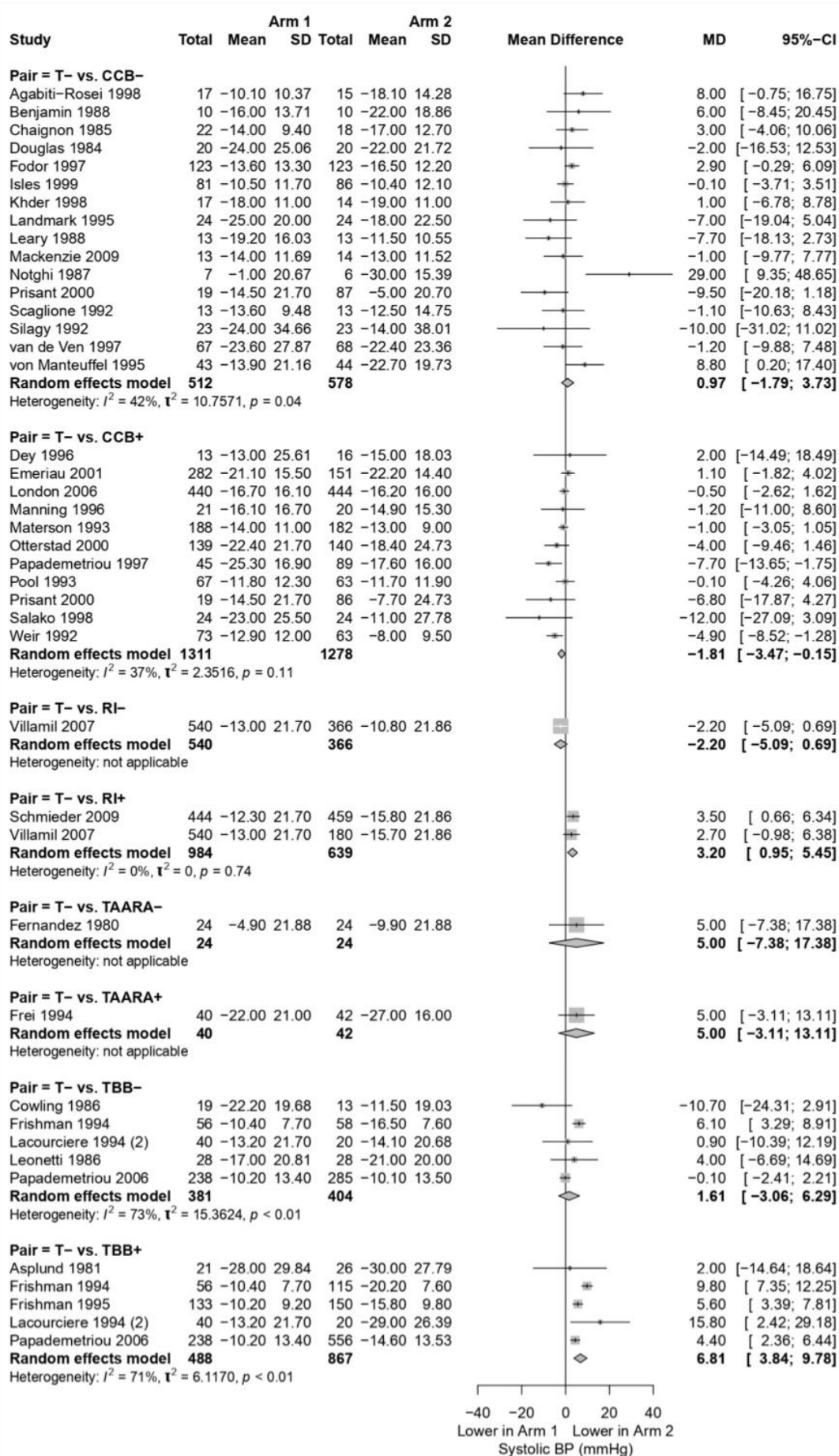


Figure S6L. Forest plot for pairwise meta-analyses (Systolic blood pressure).

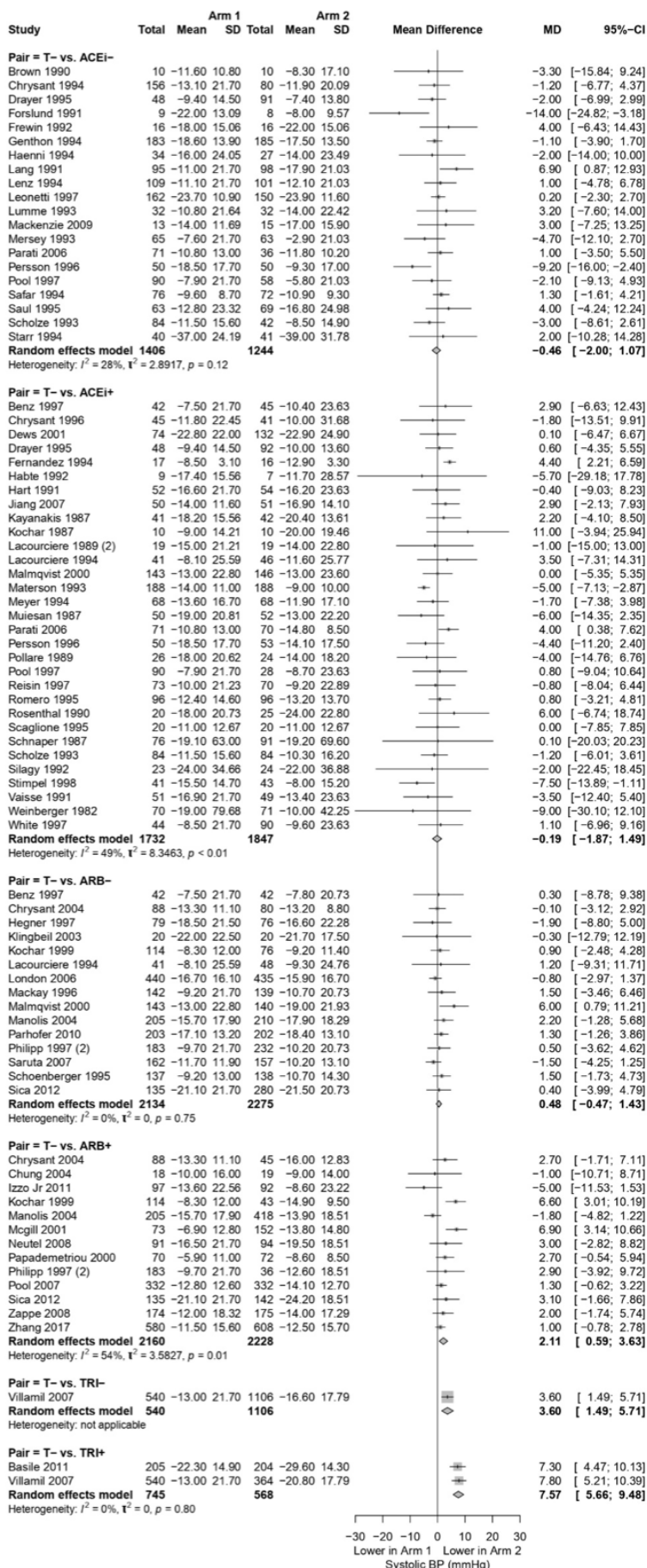


Figure S6M. Forest plot for pairwise meta-analyses (Systolic blood pressure).

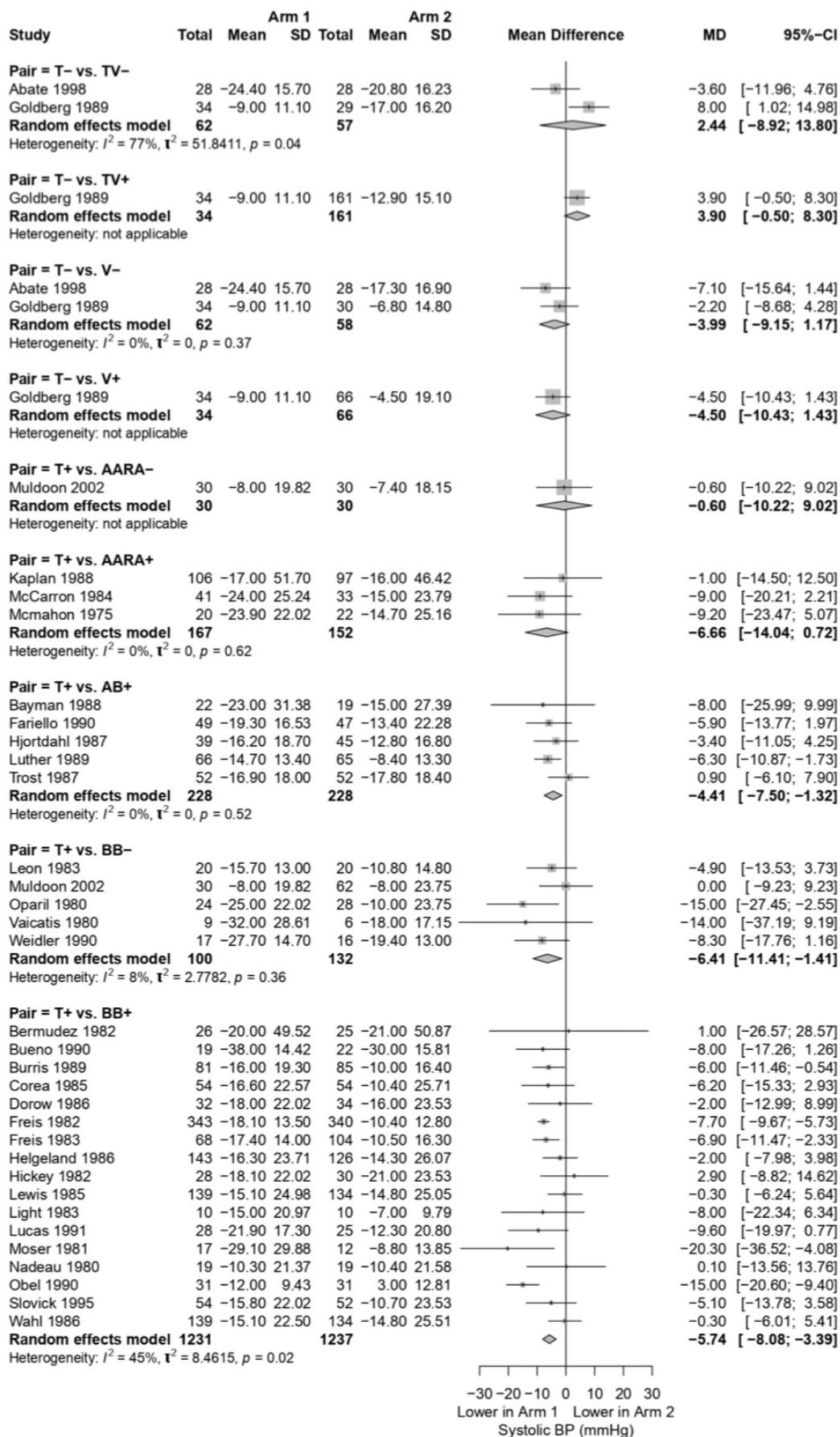


Figure S6N. Forest plot for pairwise meta-analyses (Systolic blood pressure).

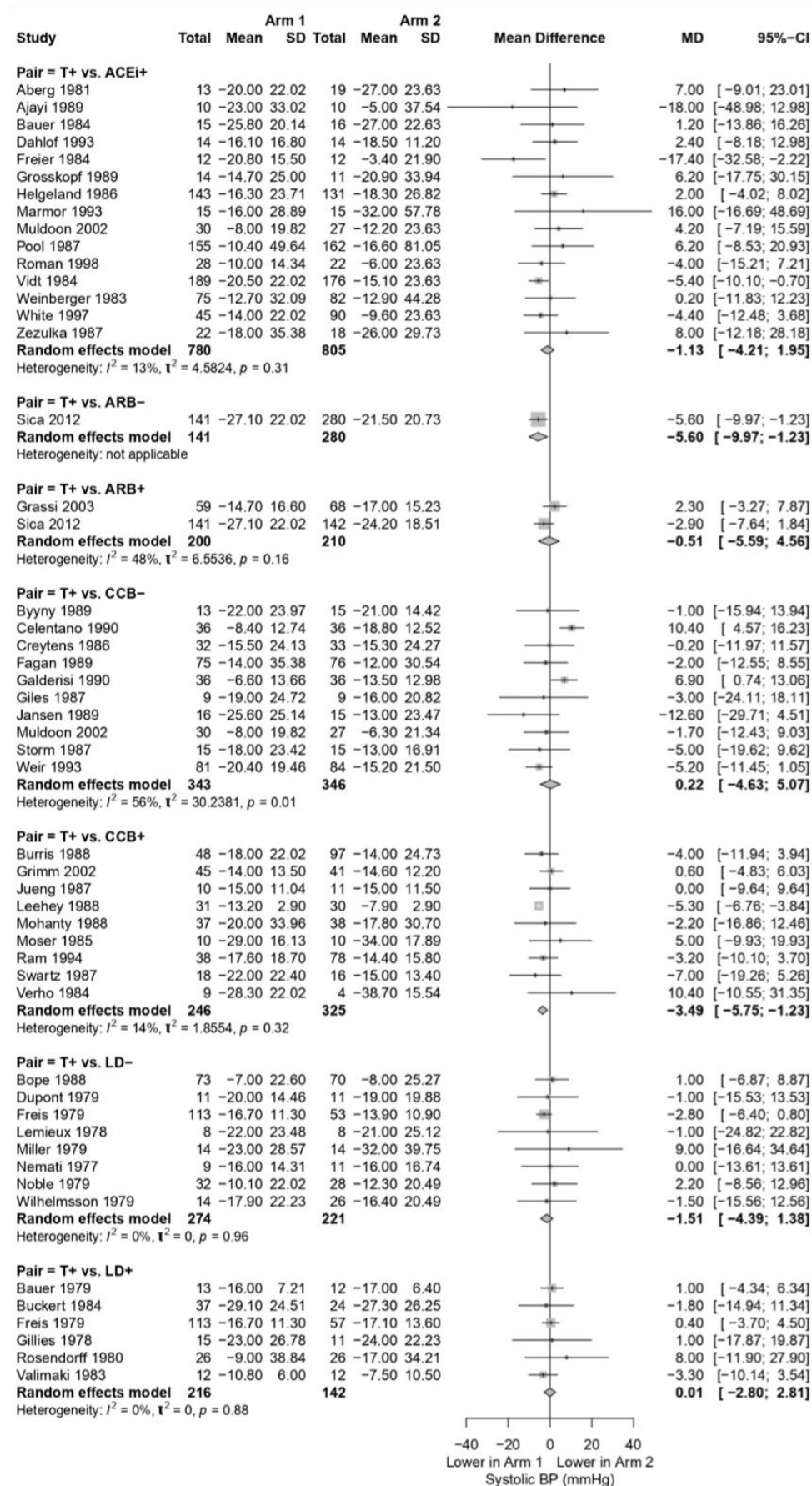


Figure S6O. Forest plot for pairwise meta-analyses (Systolic blood pressure).

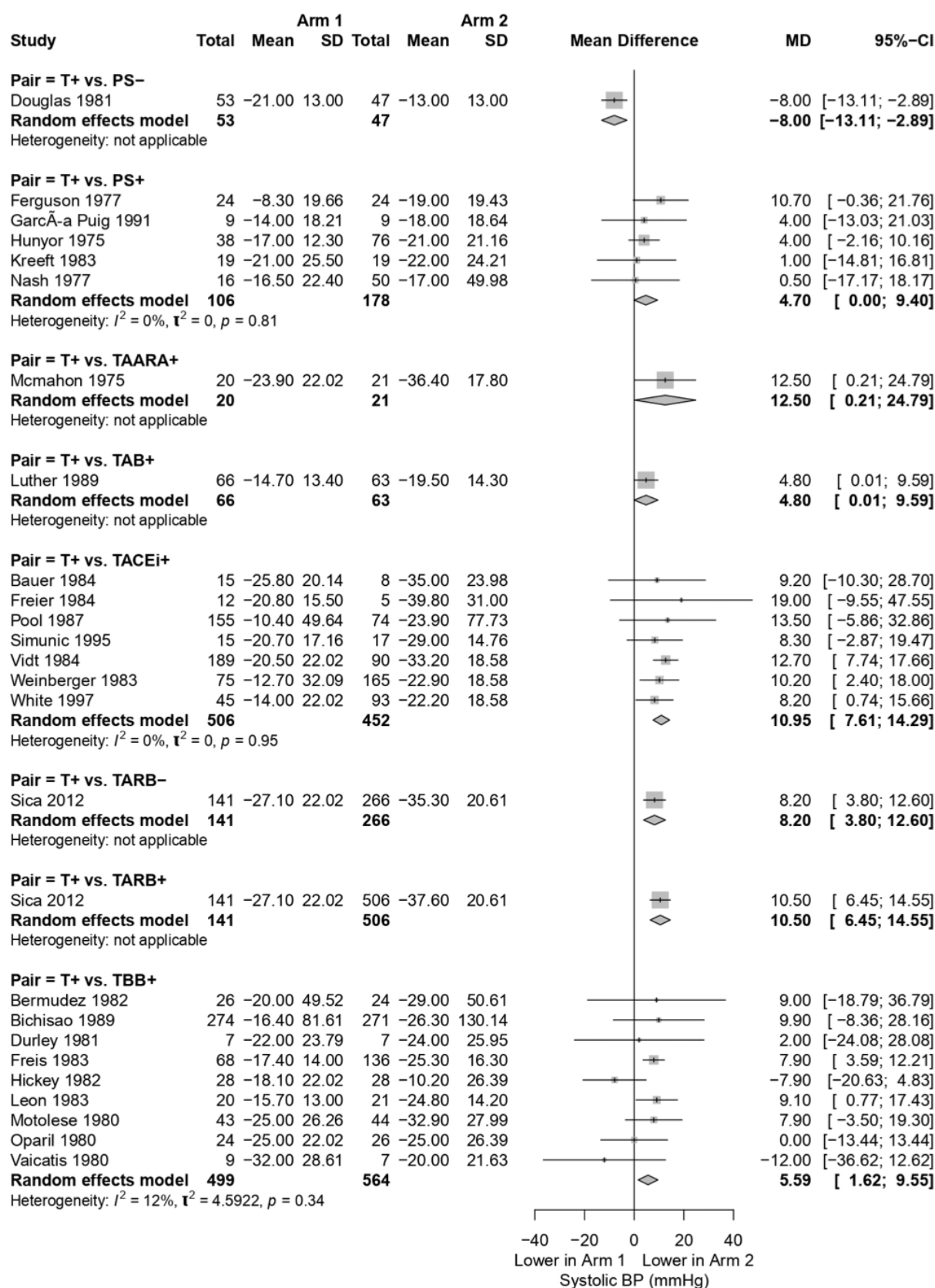


Figure S6P. Forest plot for pairwise meta-analyses (Systolic blood pressure).

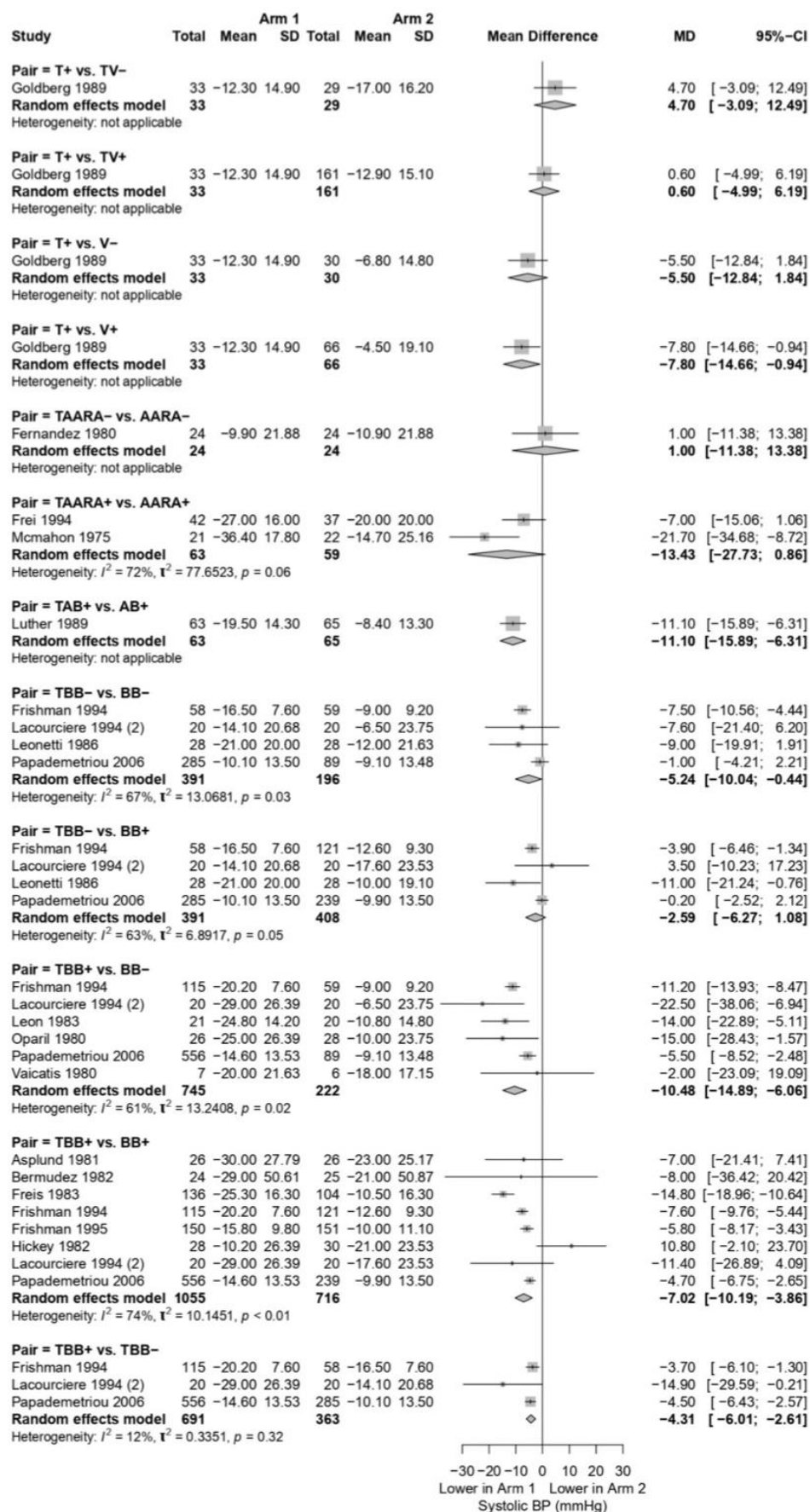


Figure S6Q. Forest plot for pairwise meta-analyses (Systolic blood pressure).

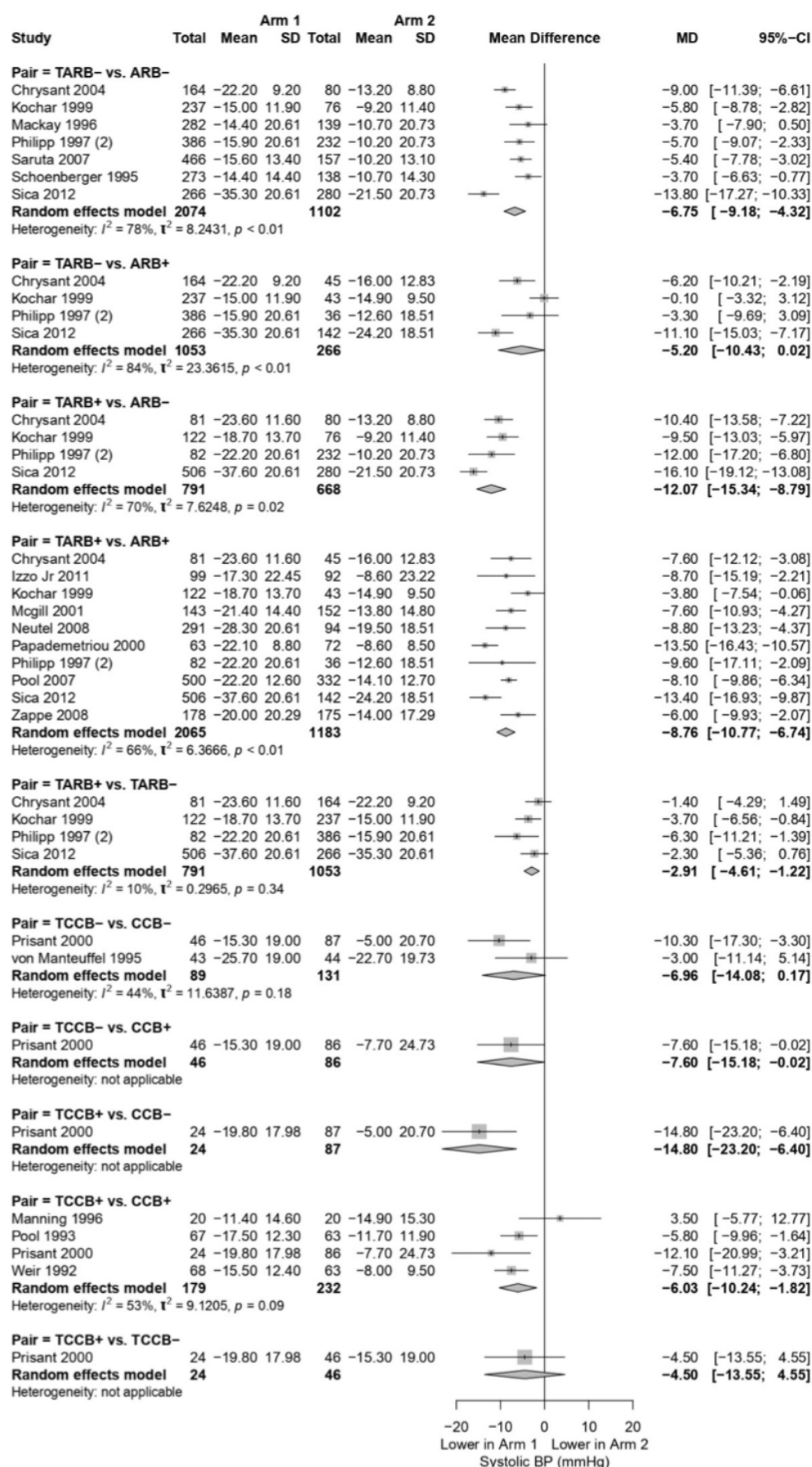


Figure S6R. Forest plot for pairwise meta-analyses (Systolic blood pressure).

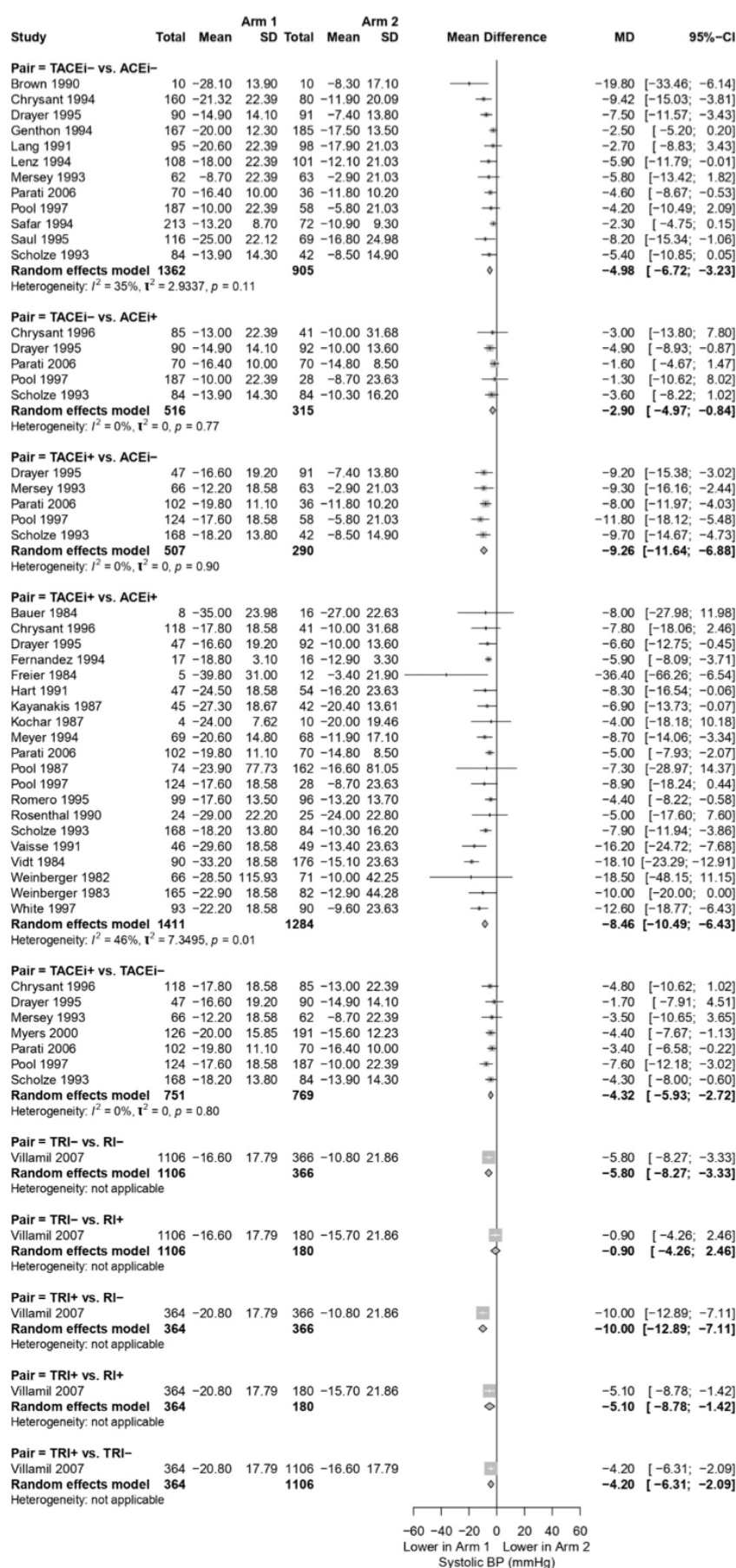


Figure S6S. Forest plot for pairwise meta-analyses (Systolic blood pressure).

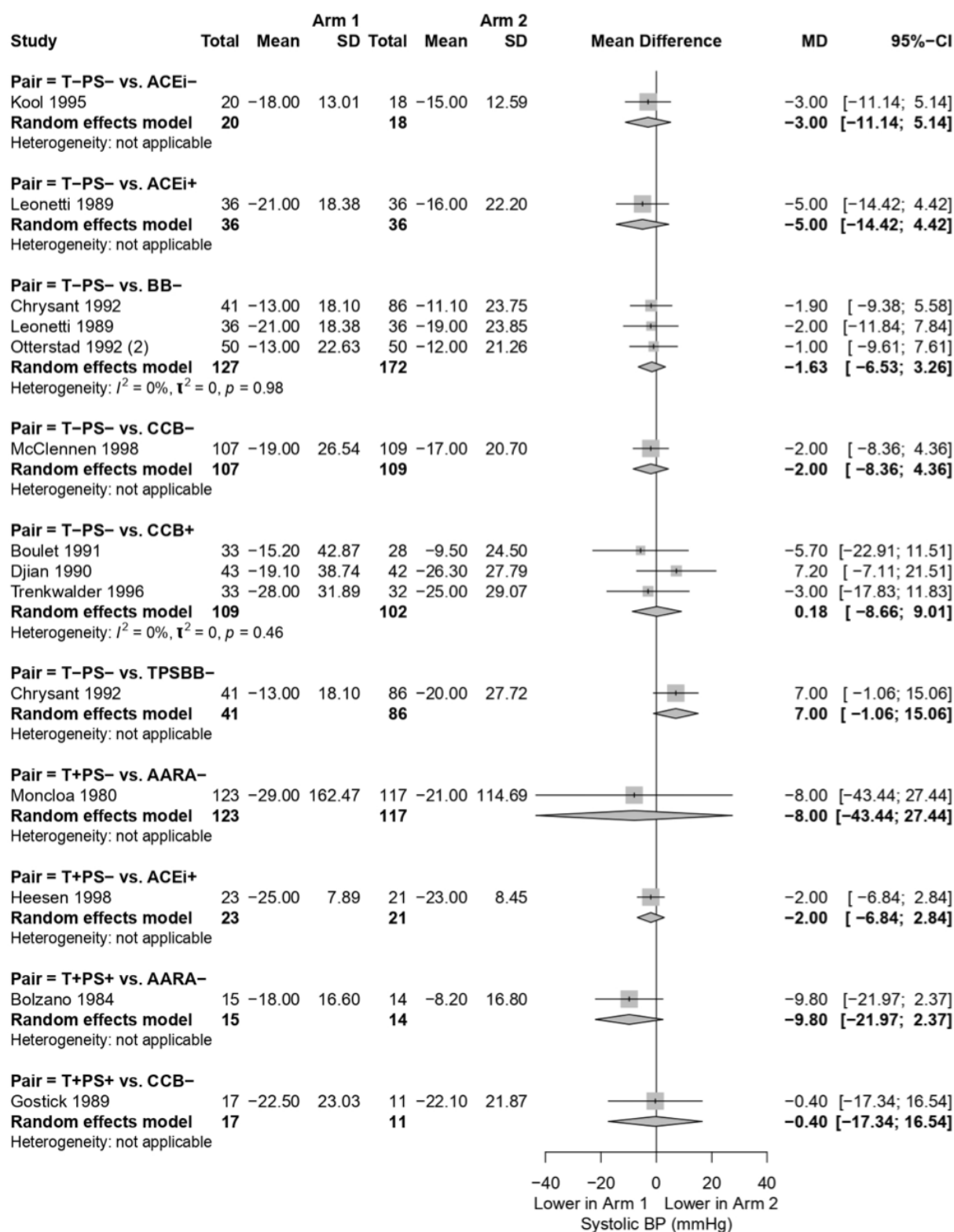


Figure S6T. Forest plot for pairwise meta-analyses (Systolic blood pressure).

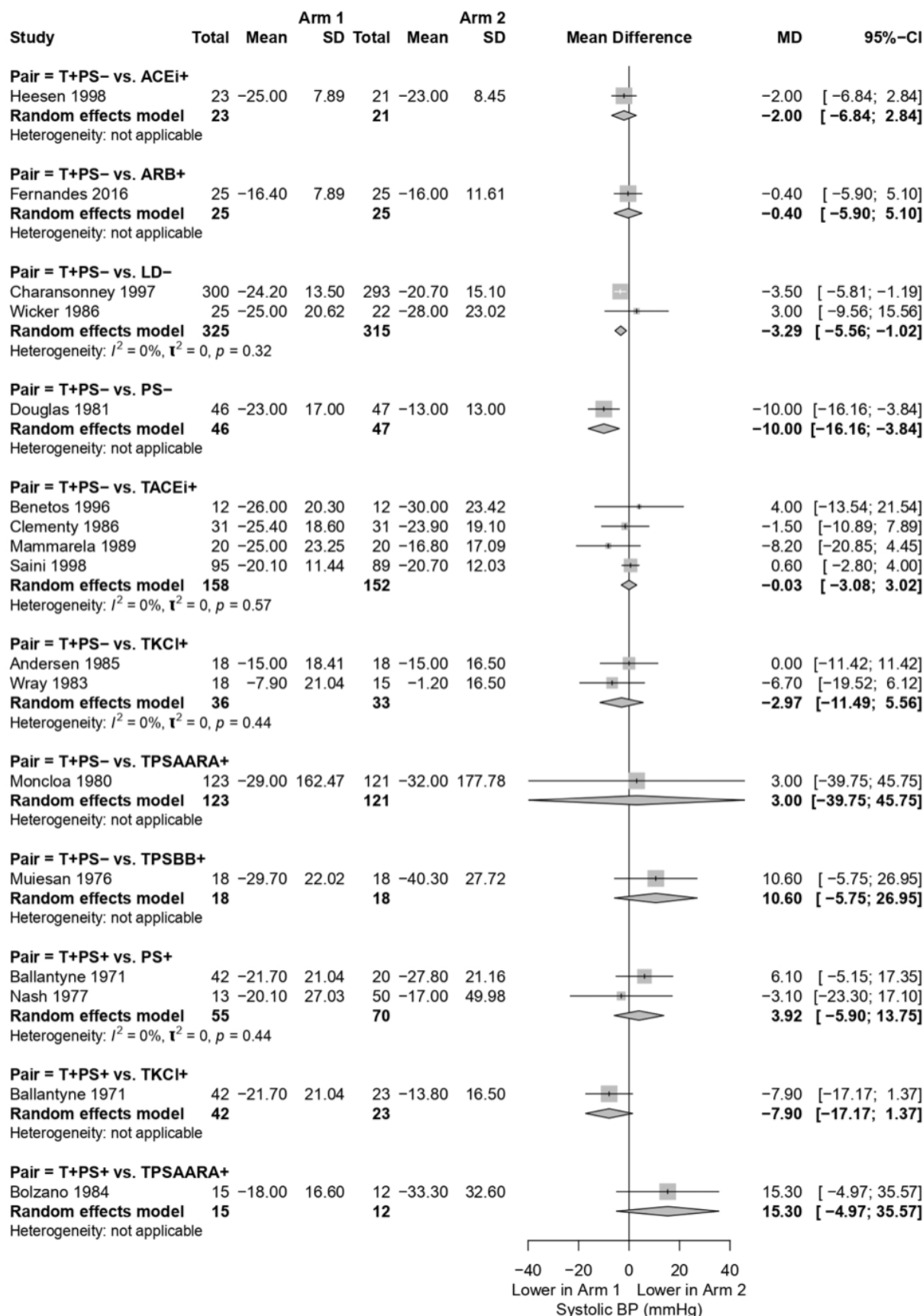


Figure S6U. Forest plot for pairwise meta-analyses (Systolic blood pressure).

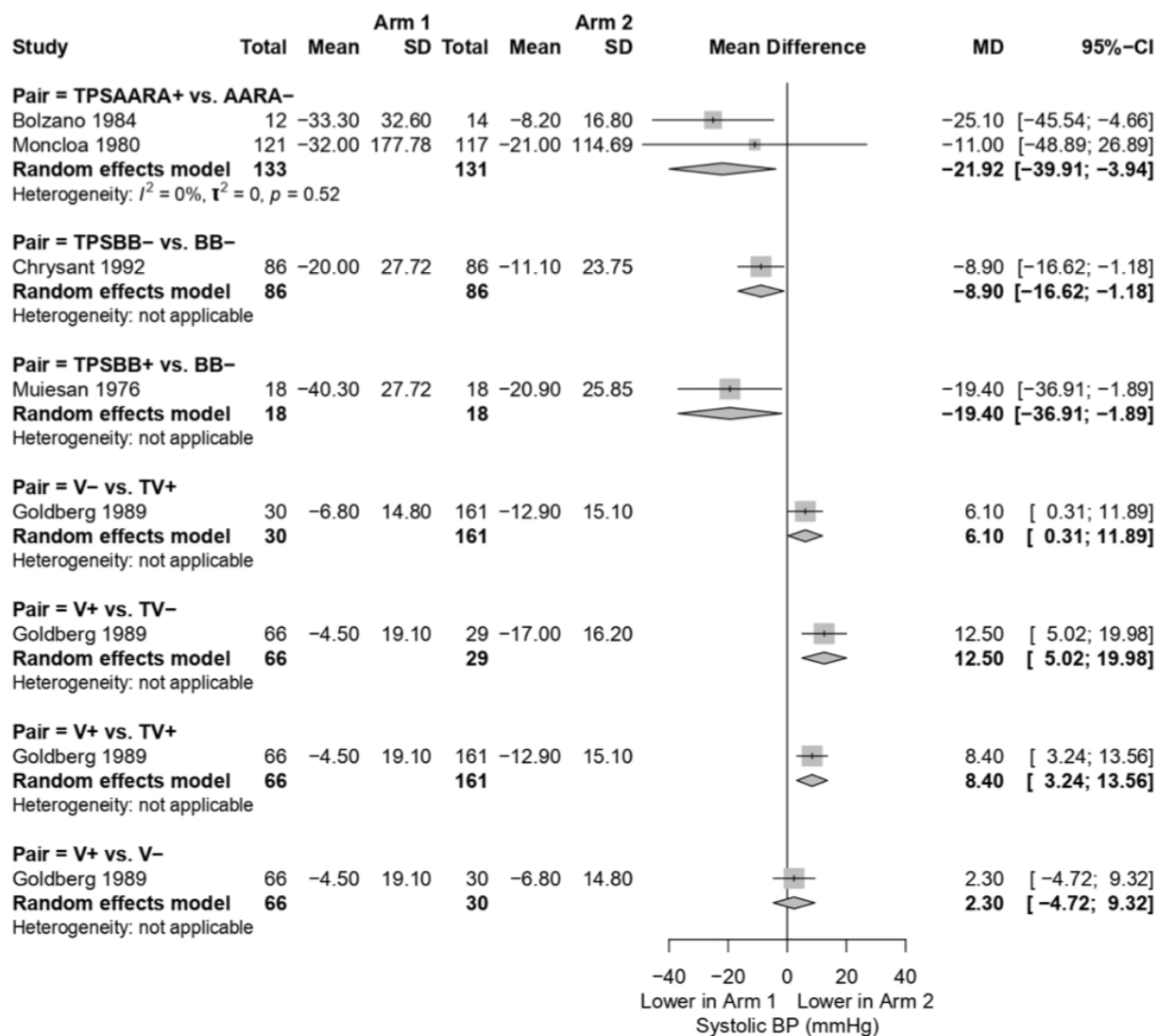


Figure S7A. Forest plot for pairwise meta-analyses (Potassium).

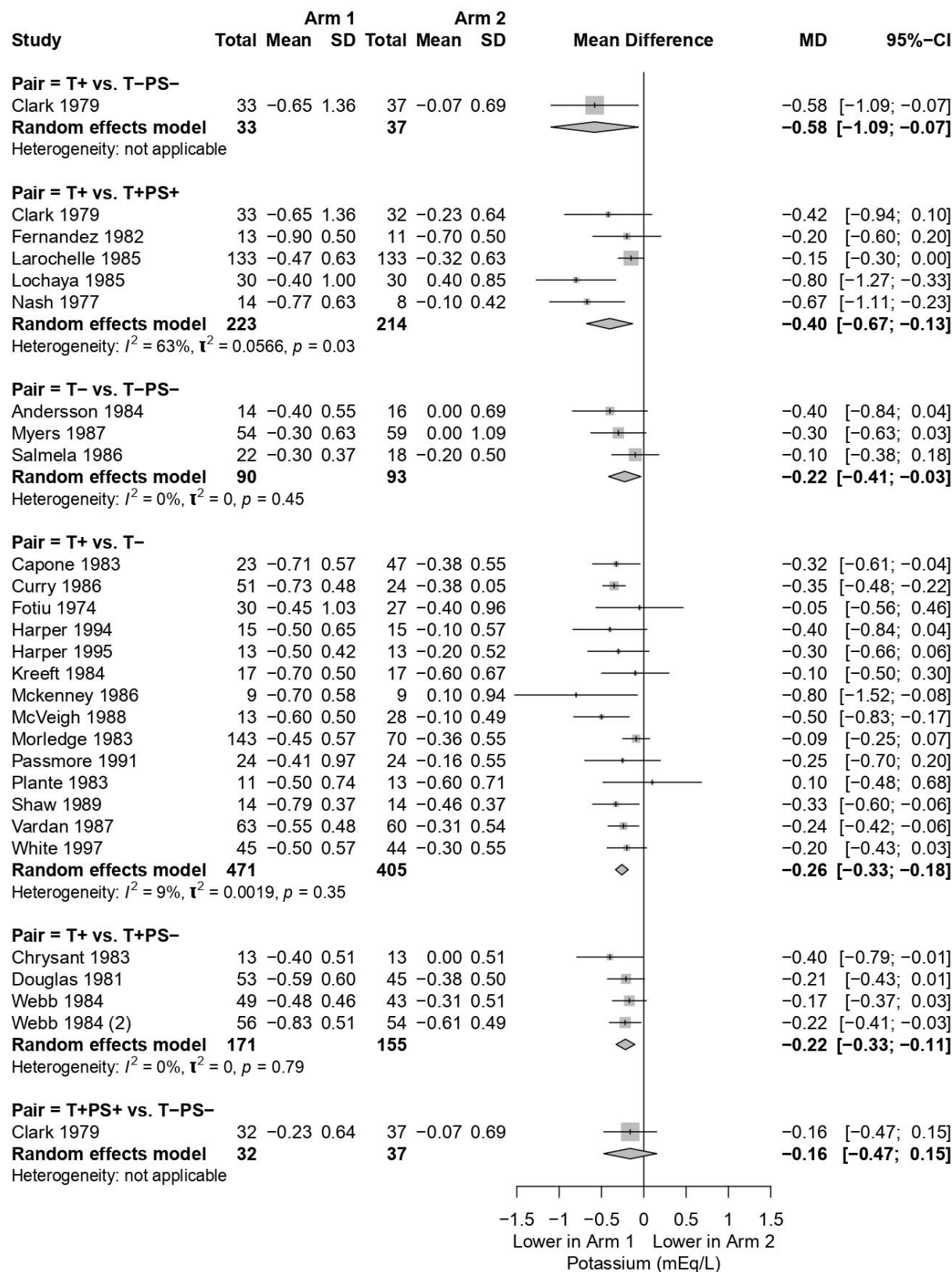


Figure S7B. Forest plot for pairwise meta-analyses (Potassium).

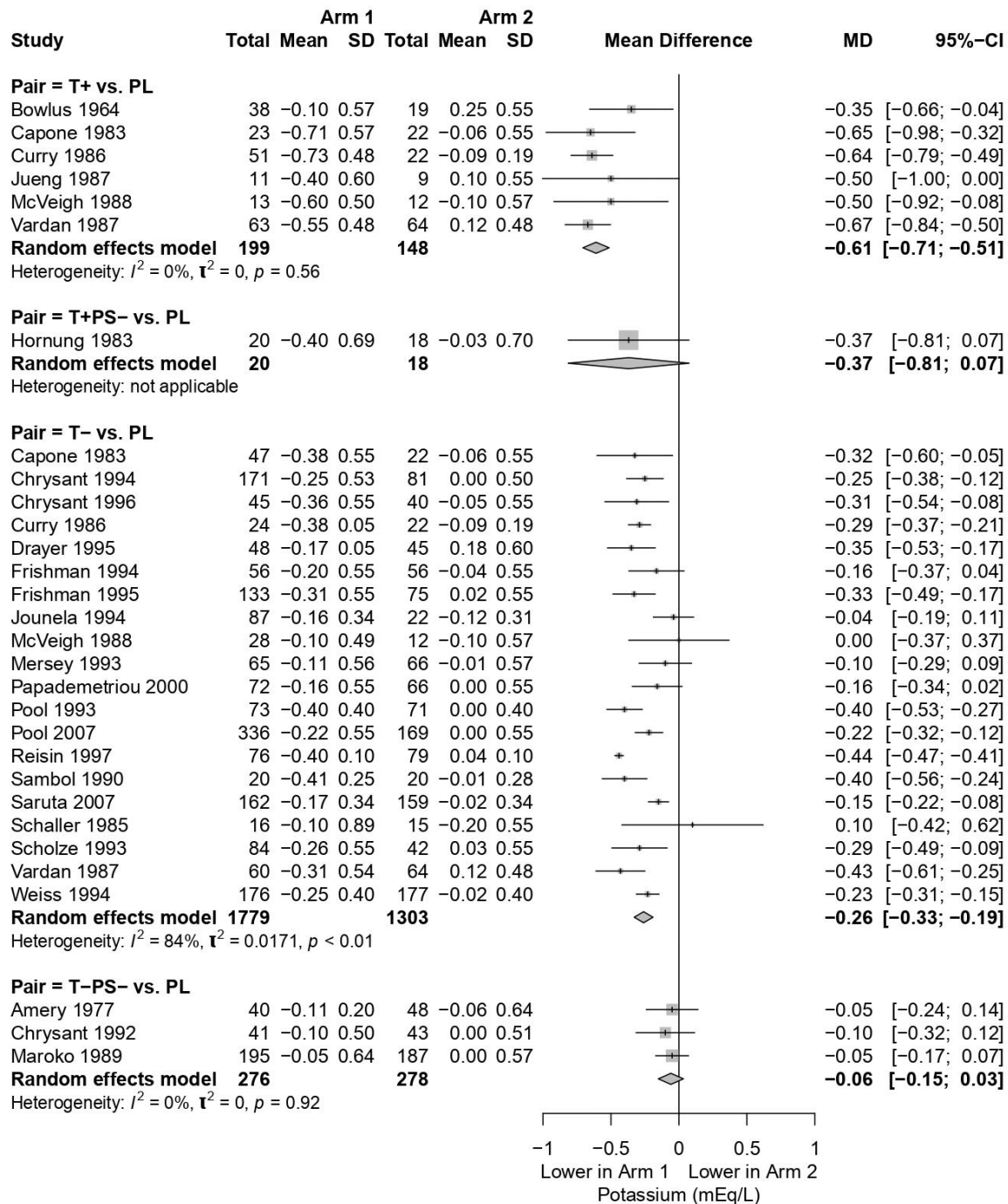


Figure S7C. Forest plot for pairwise meta-analyses (Potassium).

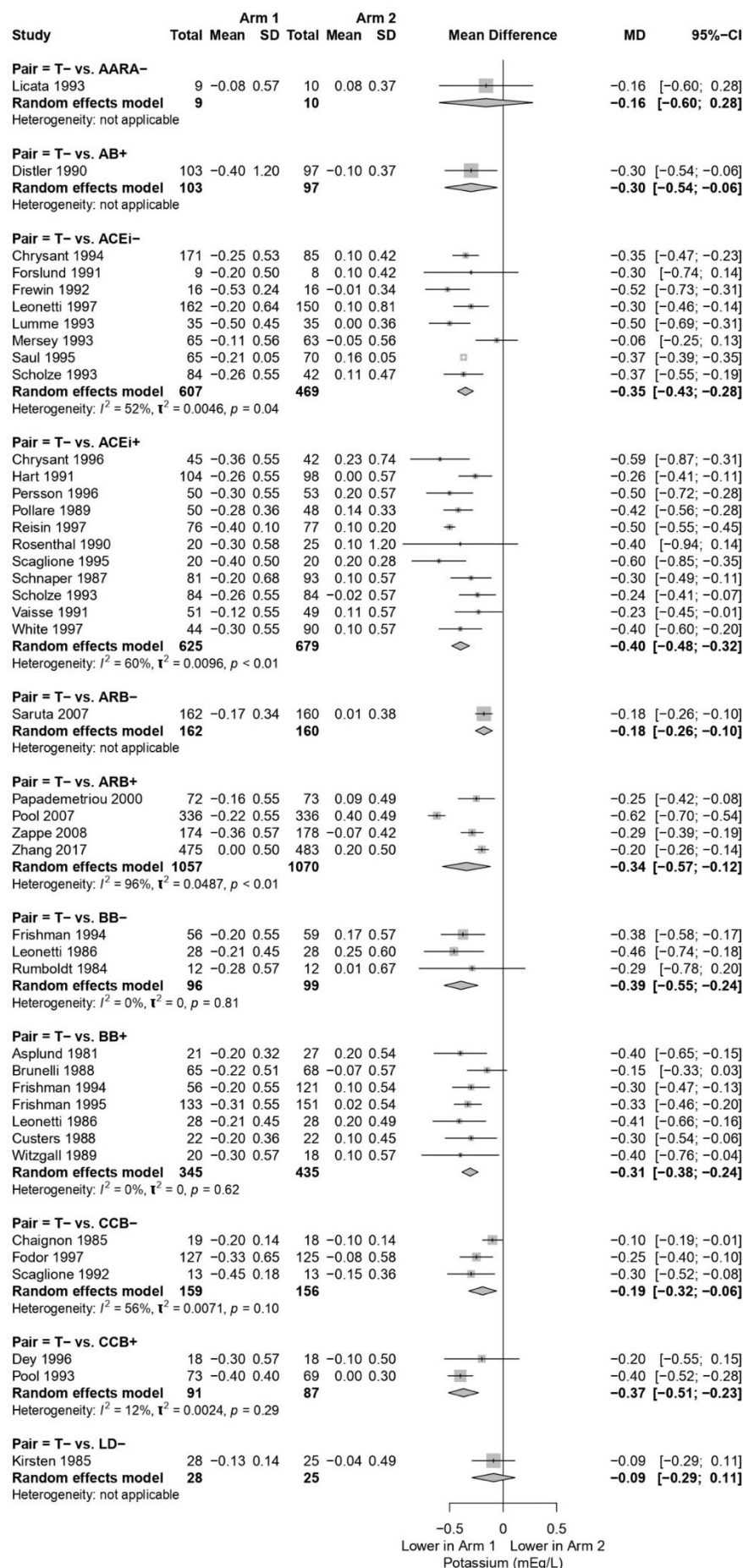


Figure S7D. Forest plot for pairwise meta-analyses (Potassium).

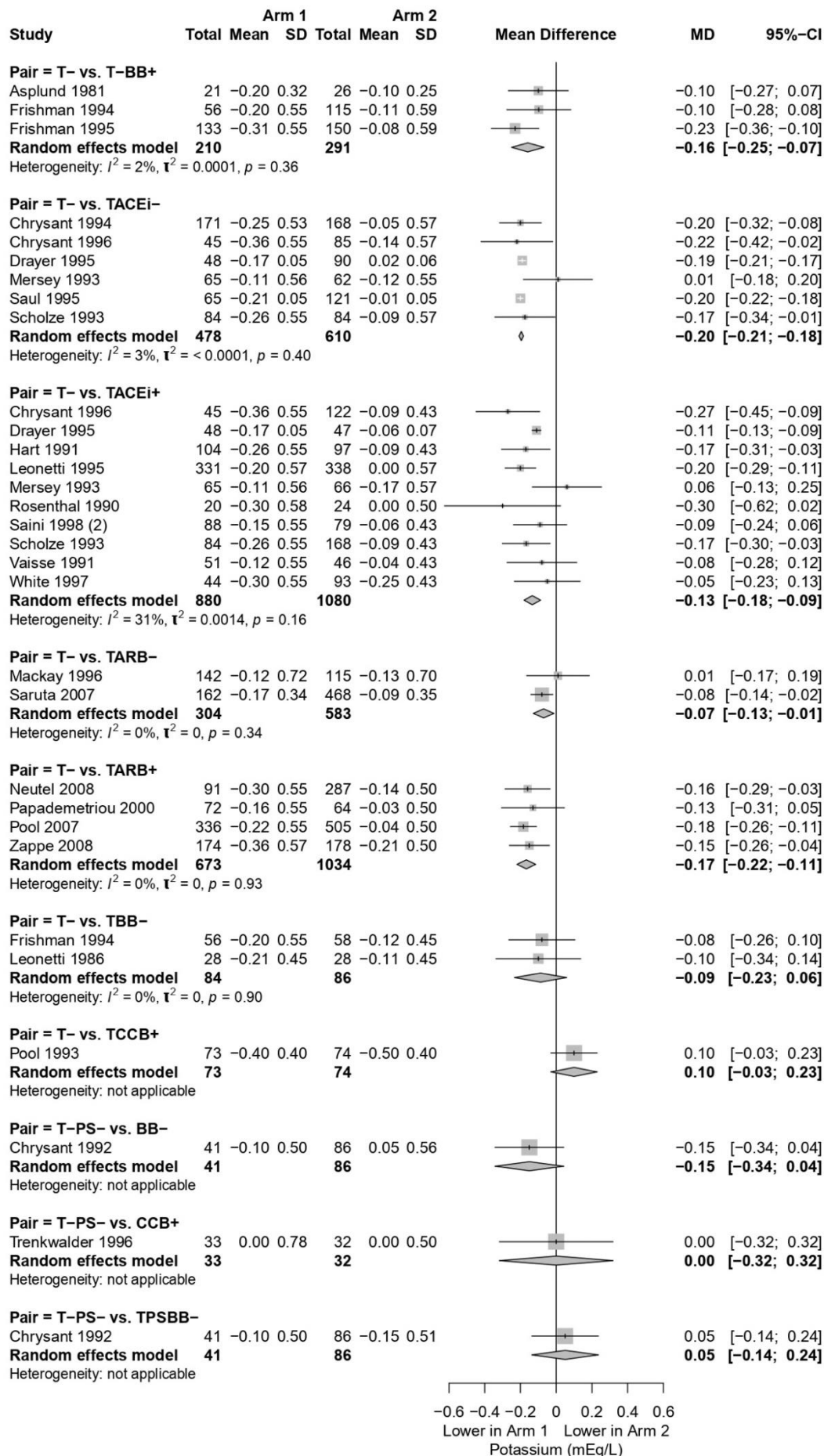


Figure S7E. Forest plot for pairwise meta-analyses (Potassium).

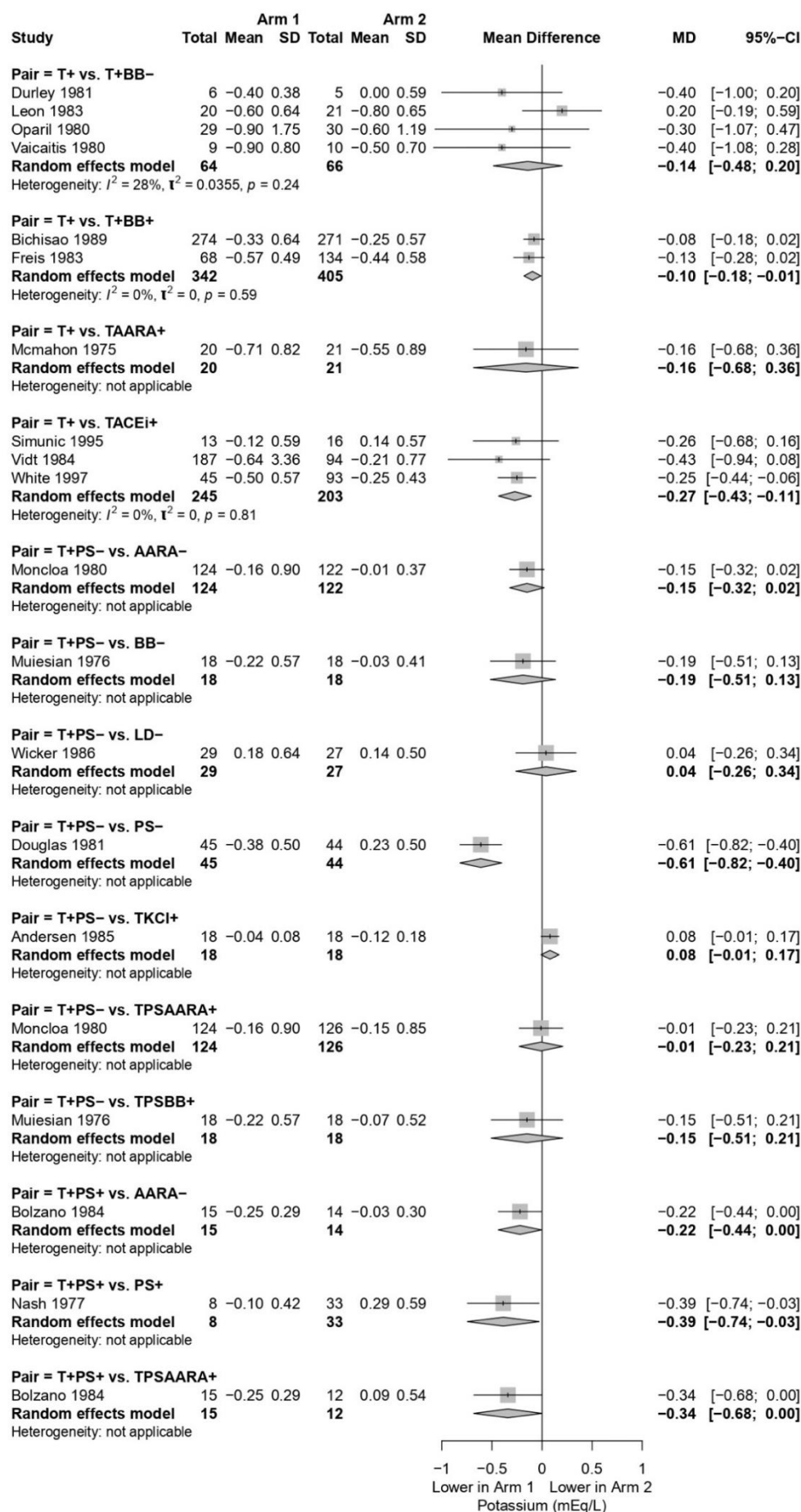


Figure S7F. Forest plot for pairwise meta-analyses (Potassium).

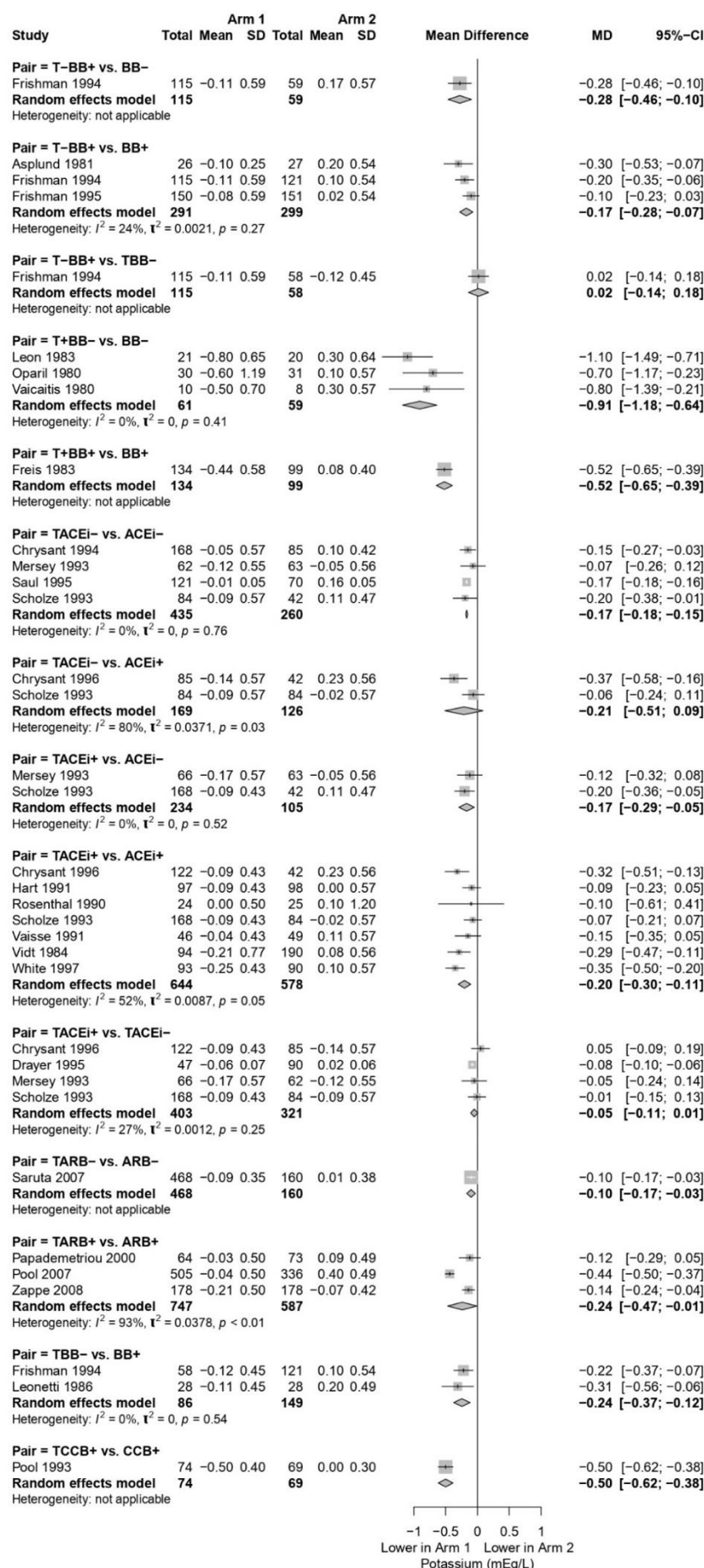


Figure S7G. Forest plot for pairwise meta-analyses (Potassium).

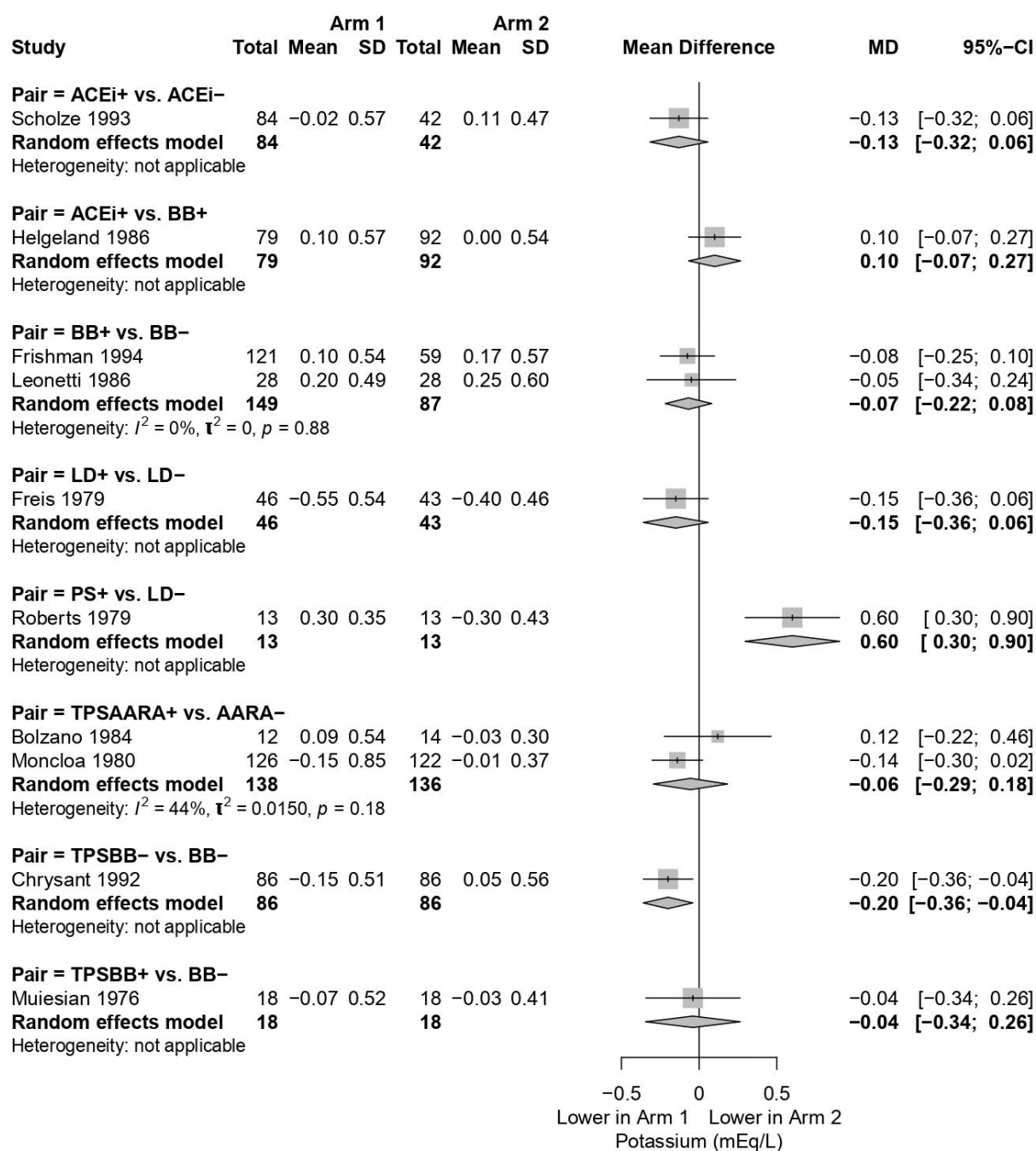


Figure S7H. Forest plot for pairwise meta-analyses (Potassium).

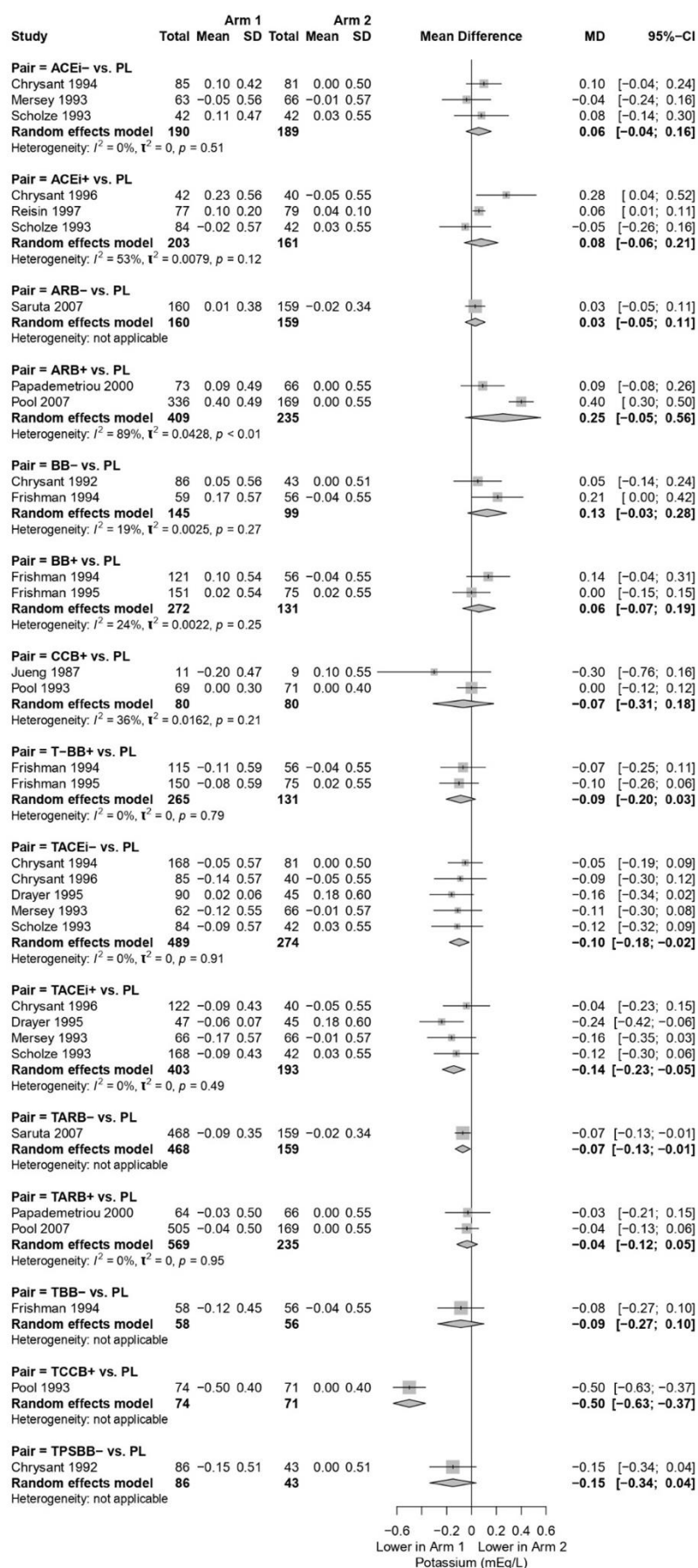


Figure S7I. Forest plot for pairwise meta-analyses (Potassium).

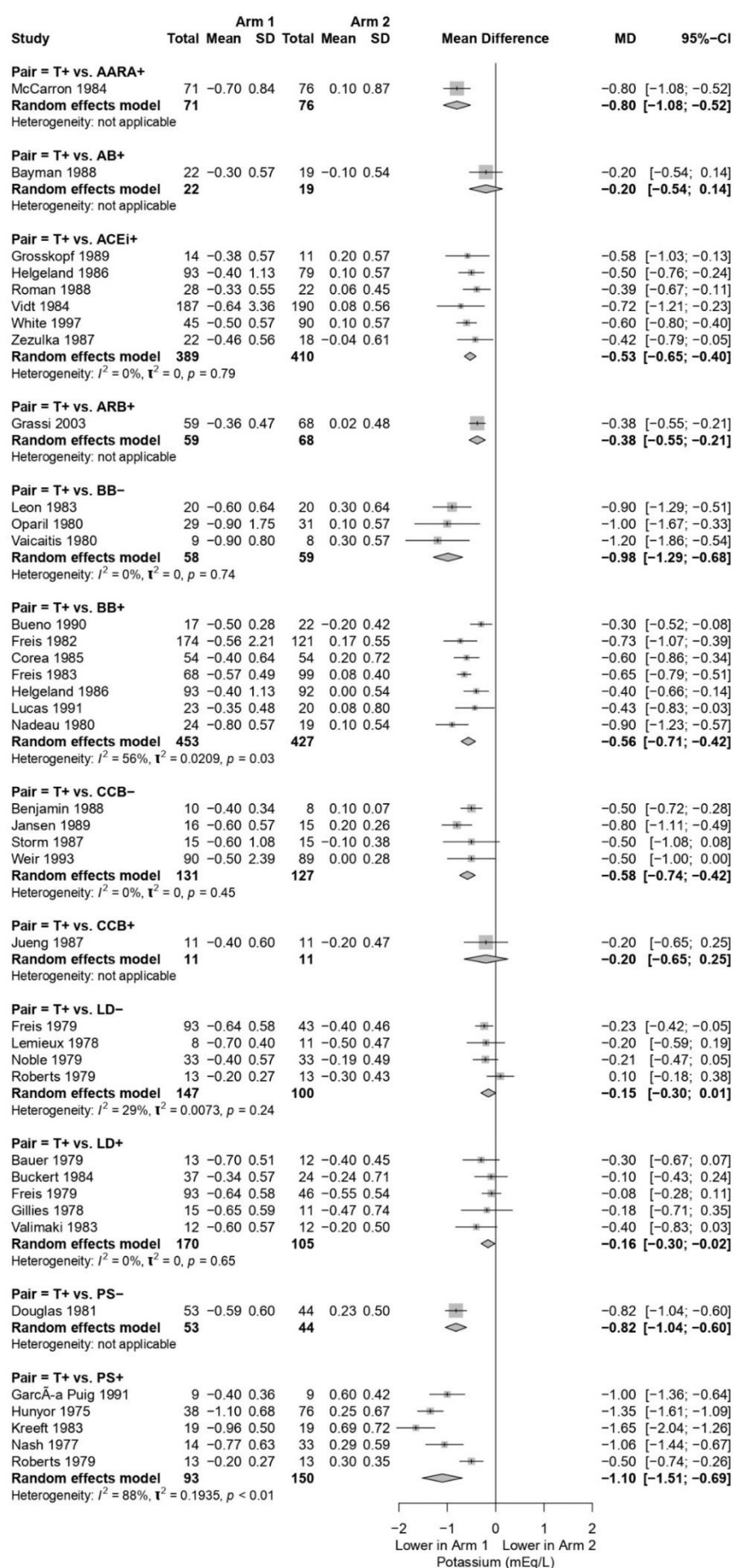


Figure S8A. Forest plot for pairwise meta-analyses (Uric acid).

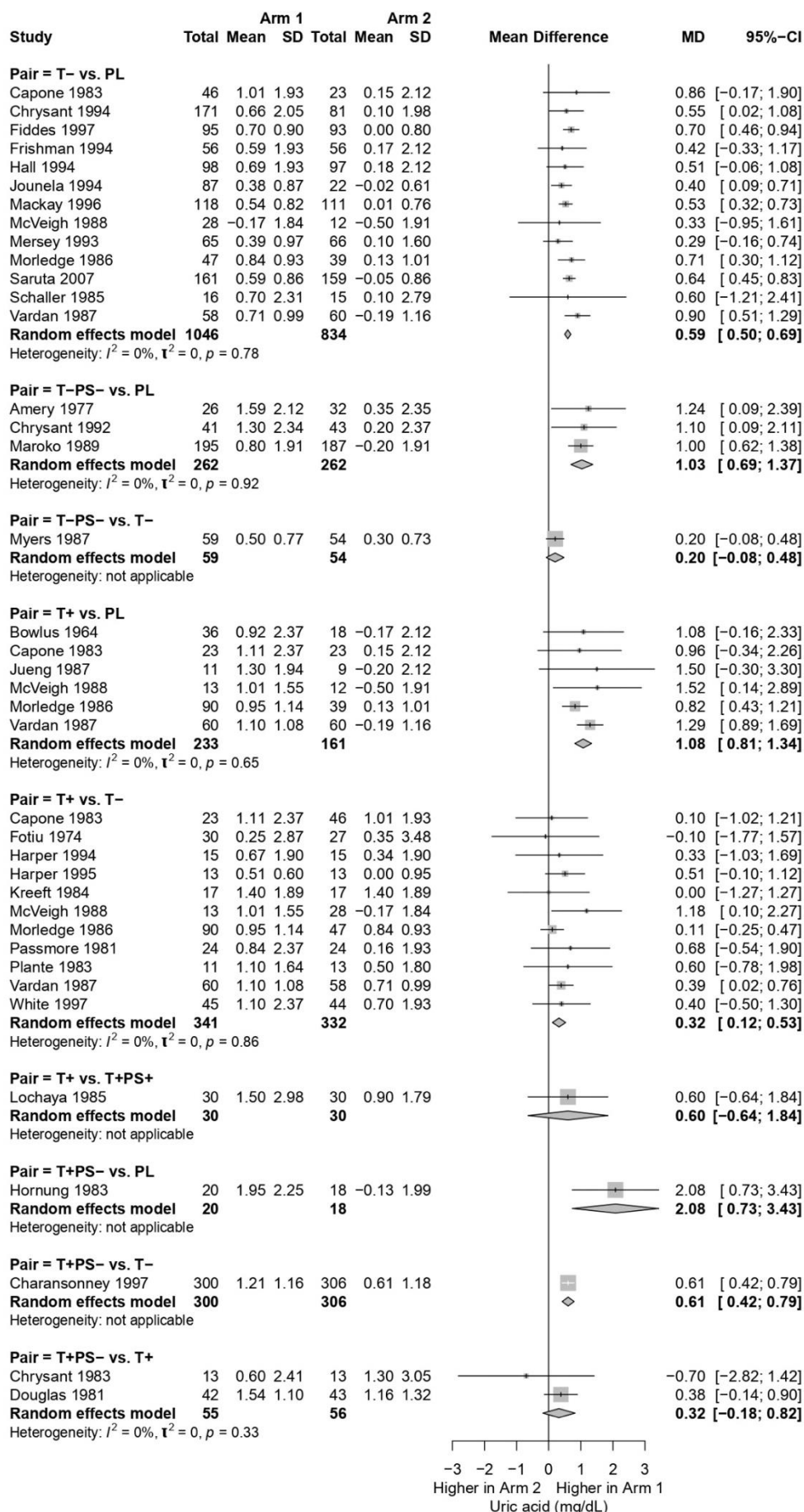


Figure S8B. Forest plot for pairwise meta-analyses (Uric acid).

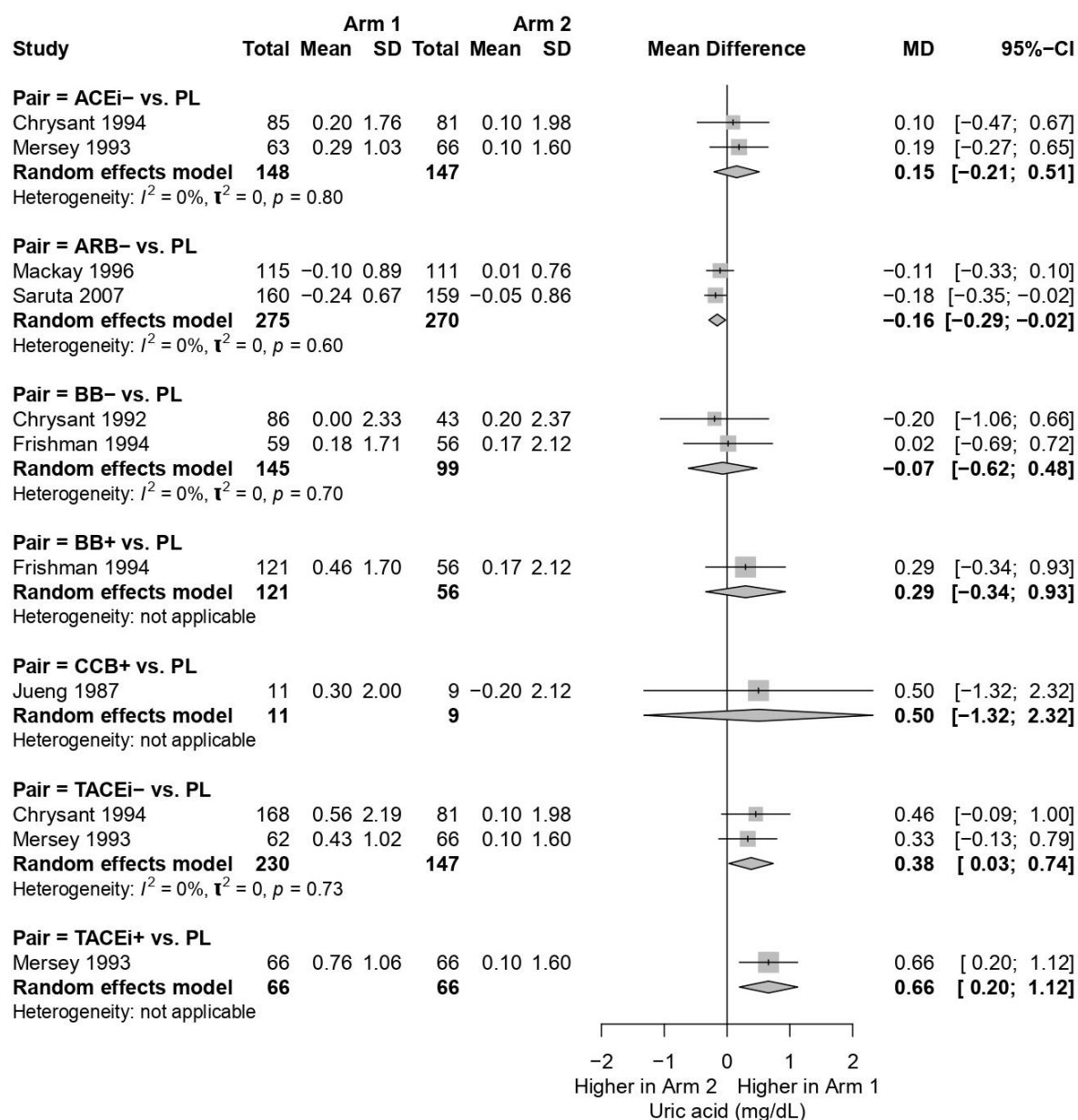


Figure S8C. Forest plot for pairwise meta-analyses (Uric acid).

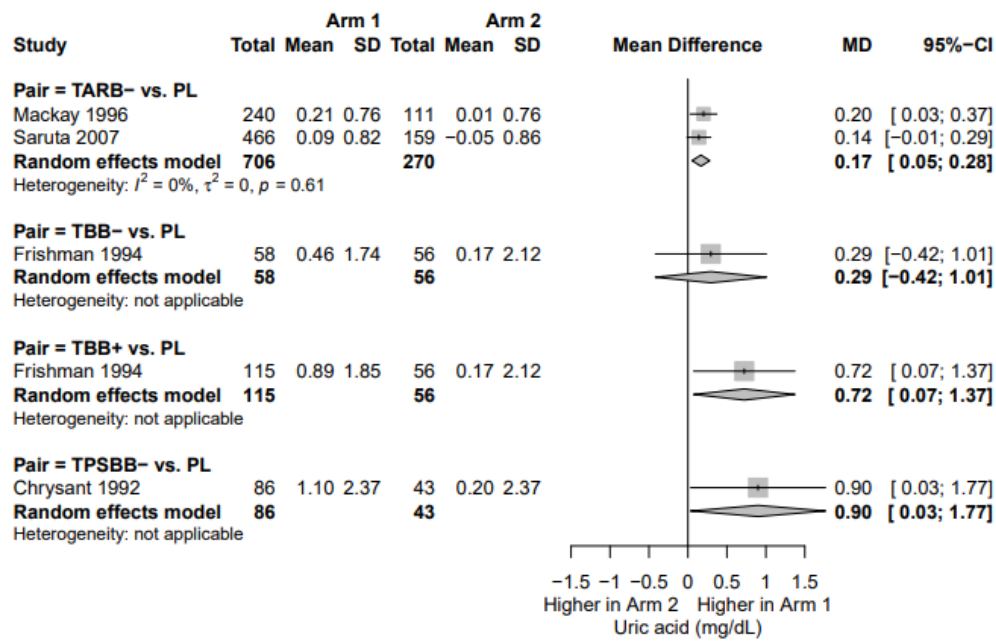


Figure S8D. Forest plot for pairwise meta-analyses (Uric acid).

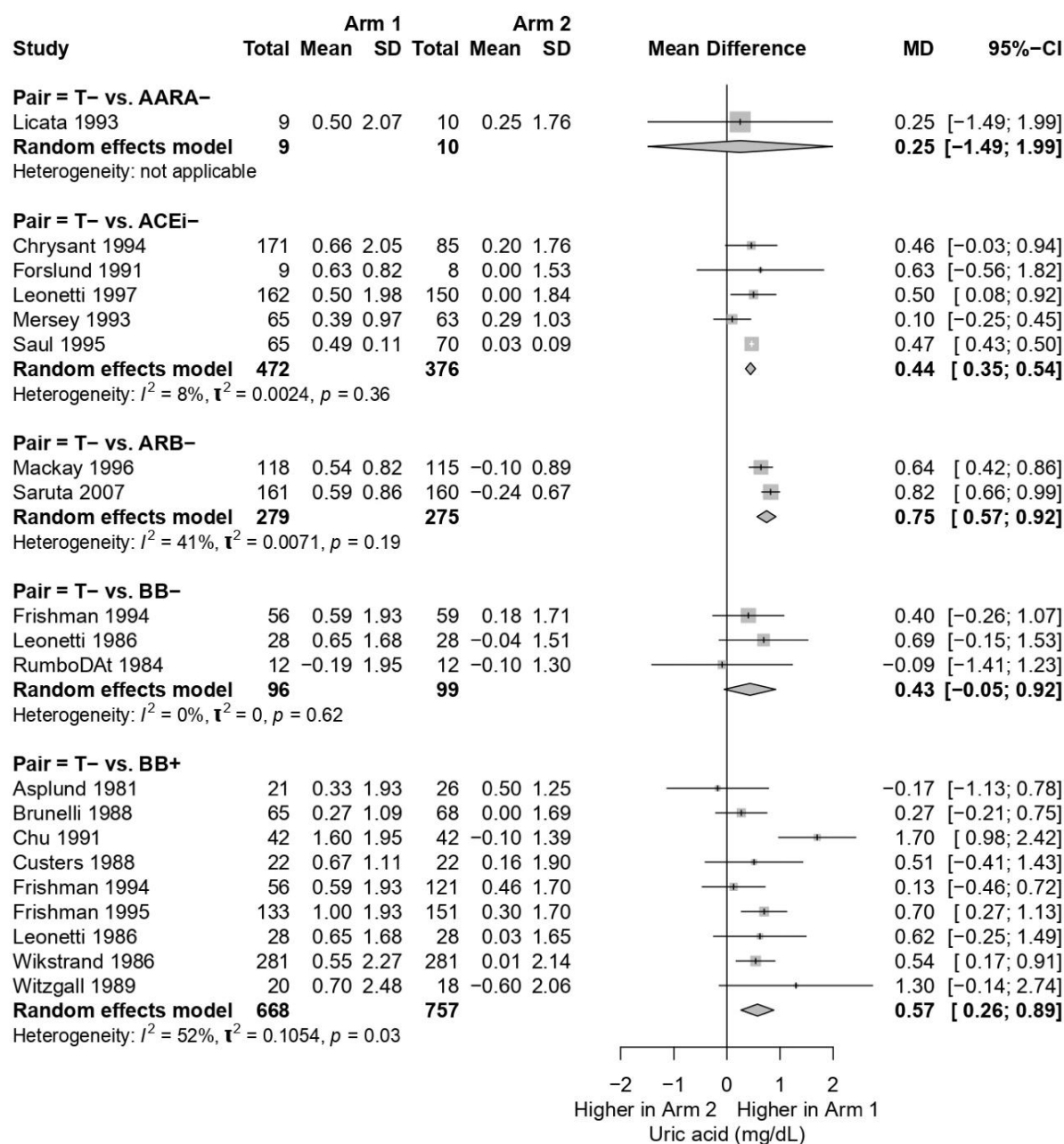


Figure S8E. Forest plot for pairwise meta-analyses (Uric acid).

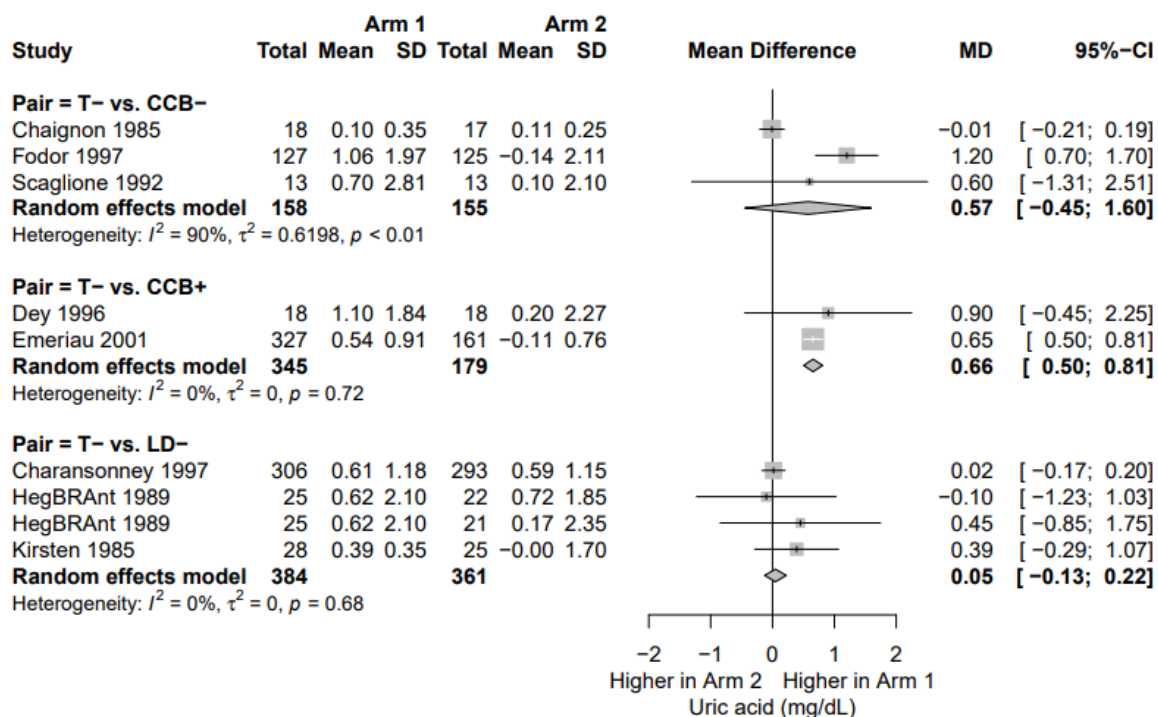


Figure S8F. Forest plot for pairwise meta-analyses (Uric acid).

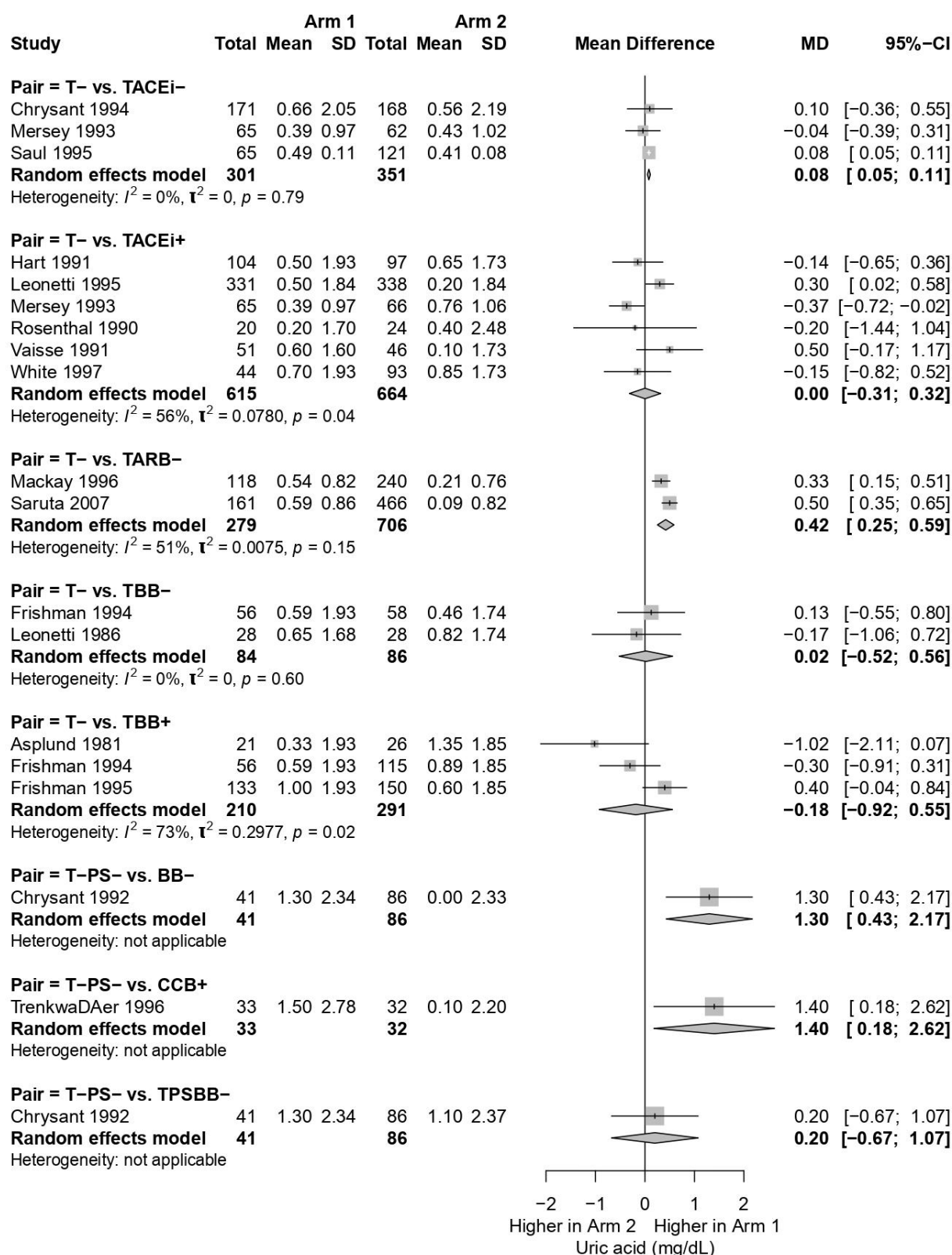


Figure S8G. Forest plot for pairwise meta-analyses (Uric acid).

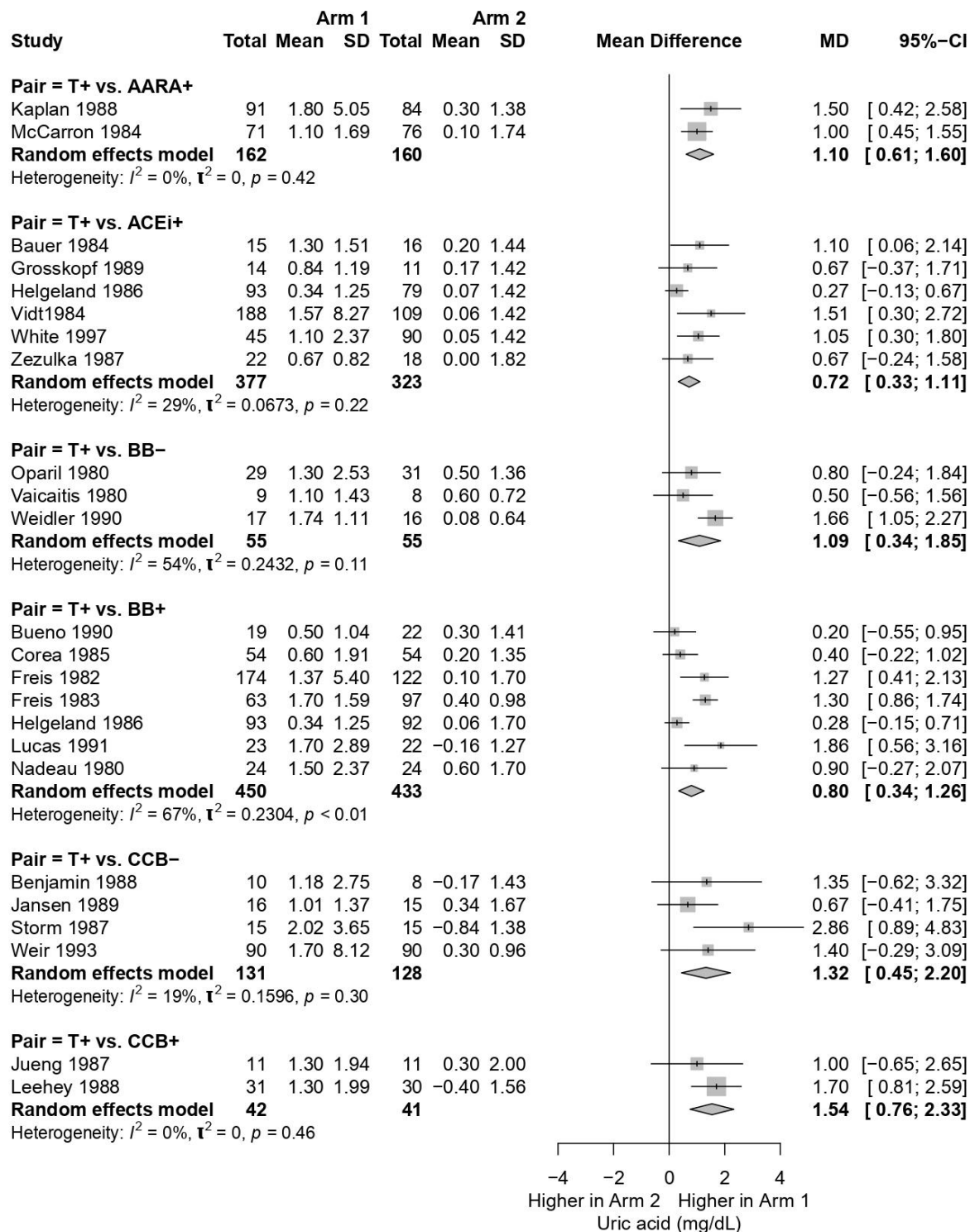


Figure S8H. Forest plot for pairwise meta-analyses (Uric acid).

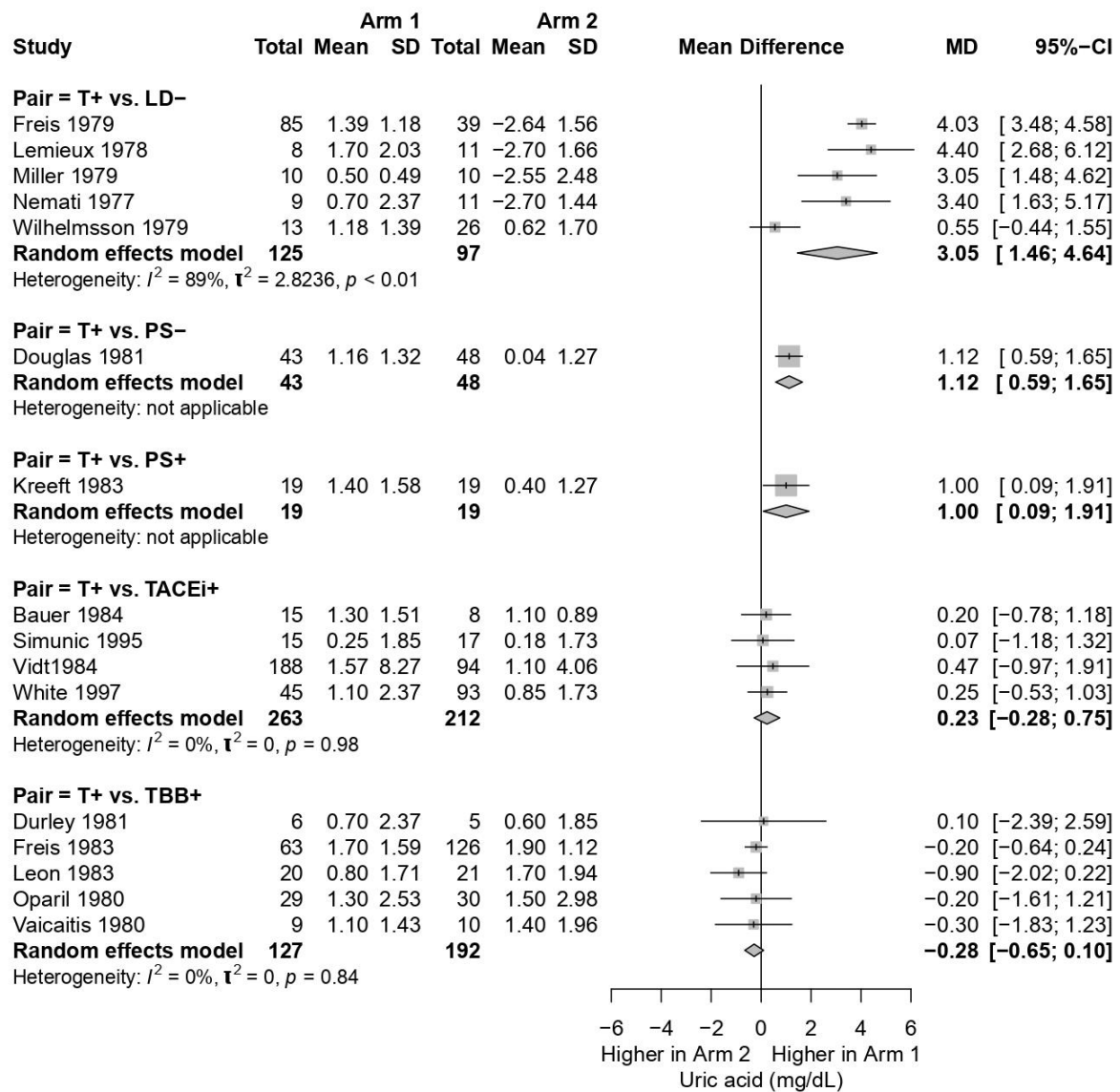


Figure S8I. Forest plot for pairwise meta-analyses (Uric acid).

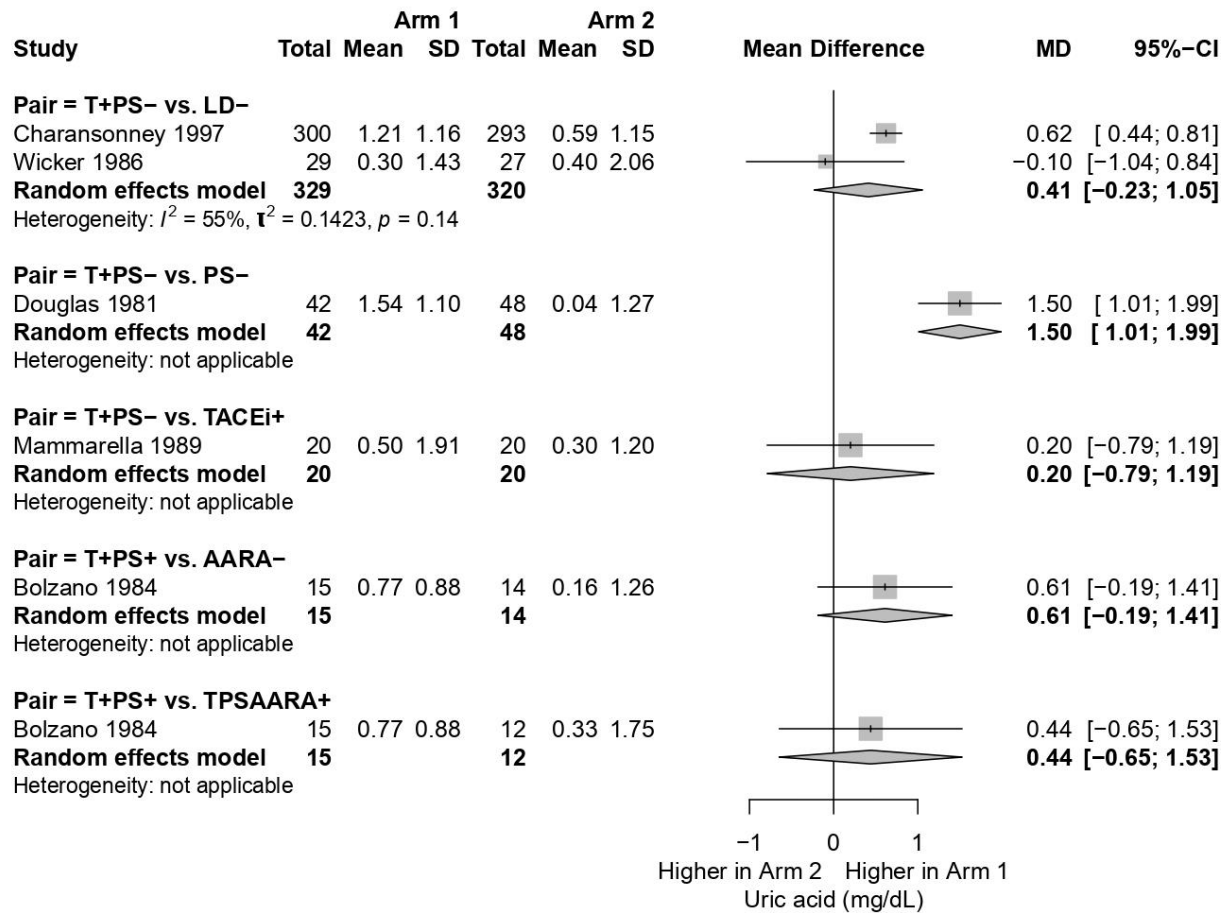


Figure S8J. Forest plot for pairwise meta-analyses (Uric acid).

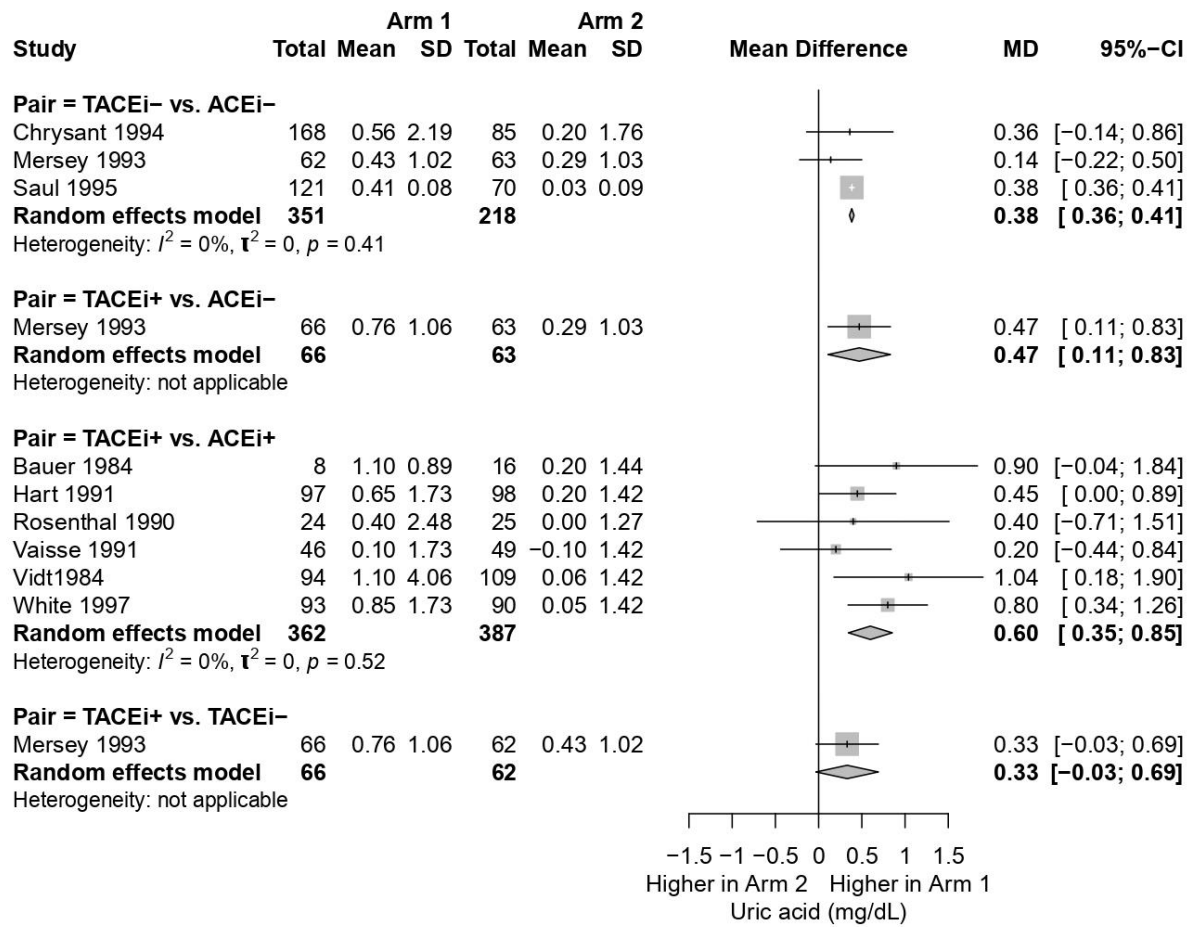


Figure S8K. Forest plot for pairwise meta-analyses (Uric acid).

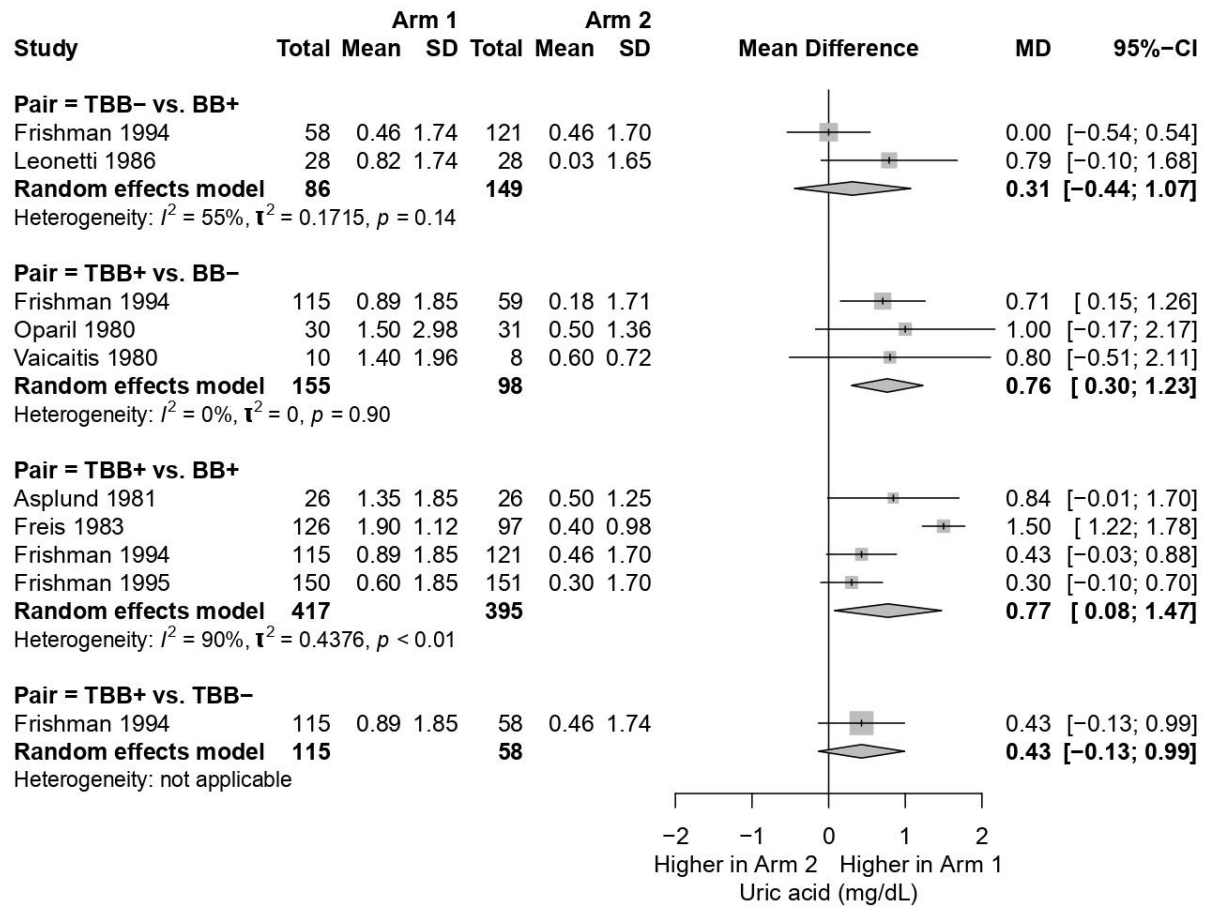


Figure S8L. Forest plot for pairwise meta-analyses (Uric acid).

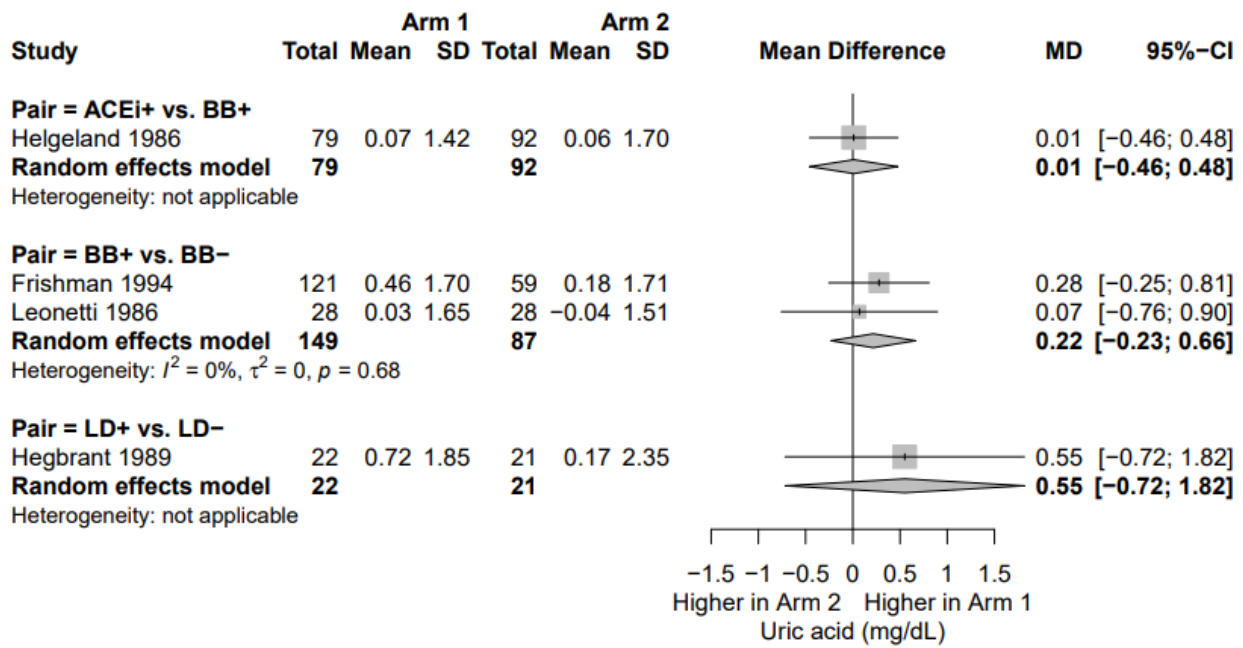


Figure S8M. Forest plot for pairwise meta-analyses (Uric acid).

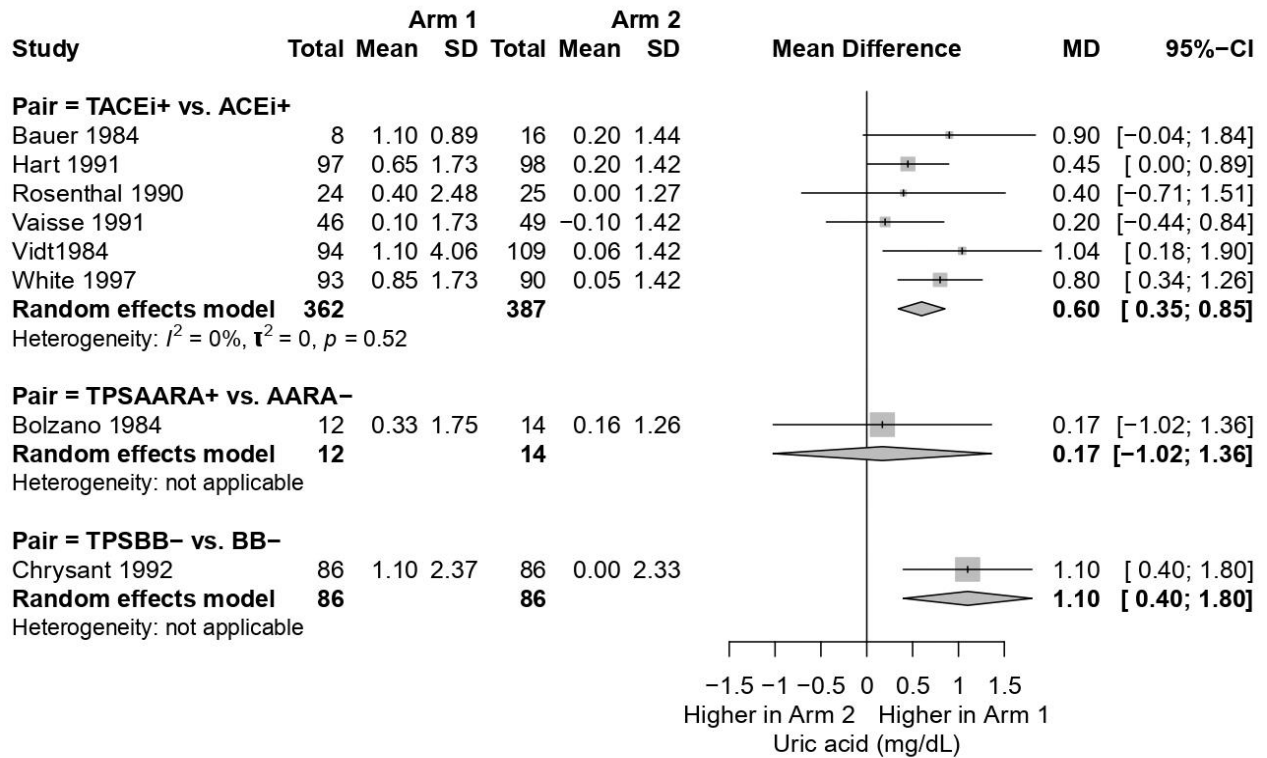


Figure S9A. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

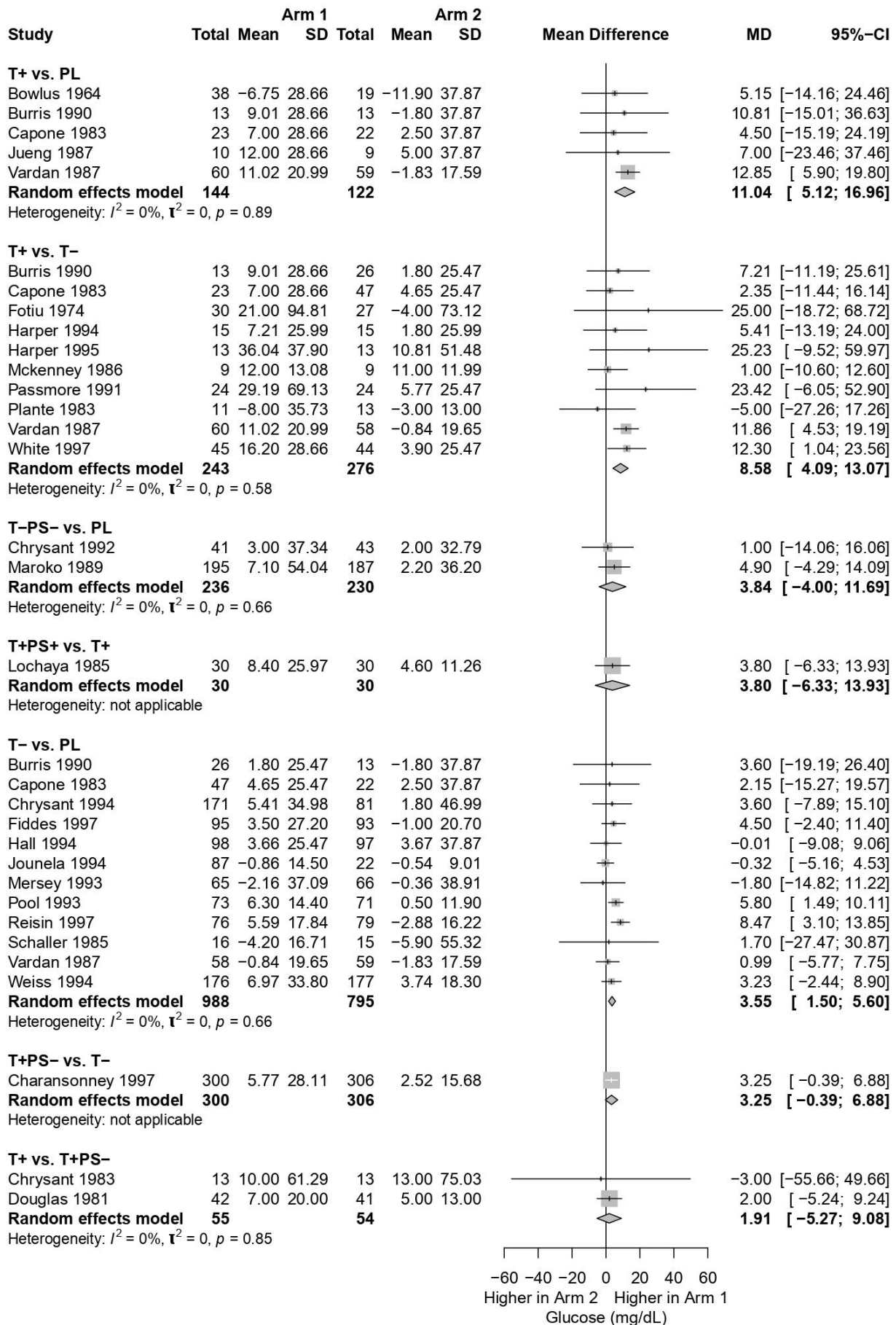


Figure S9B. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

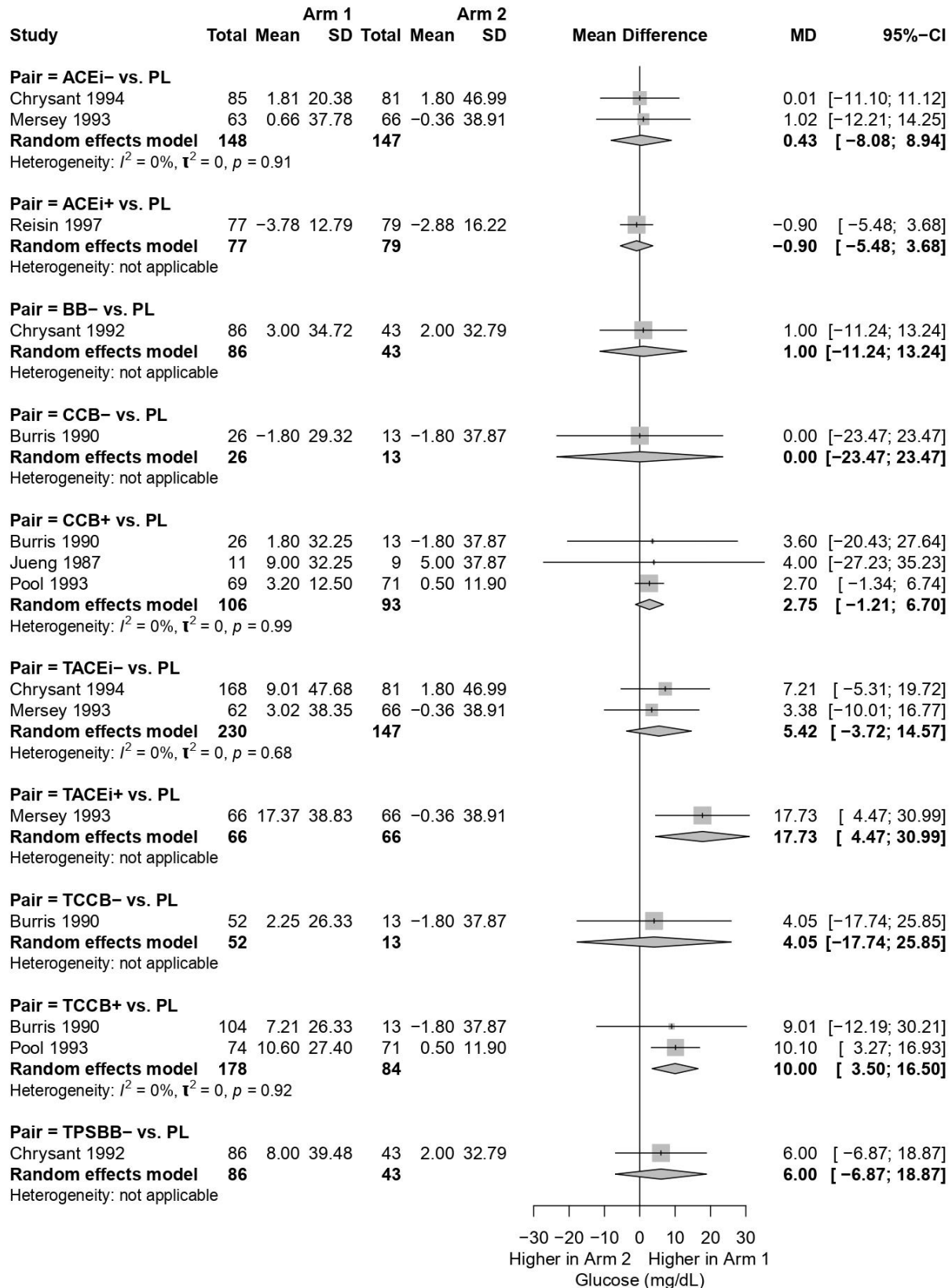


Figure S9C. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

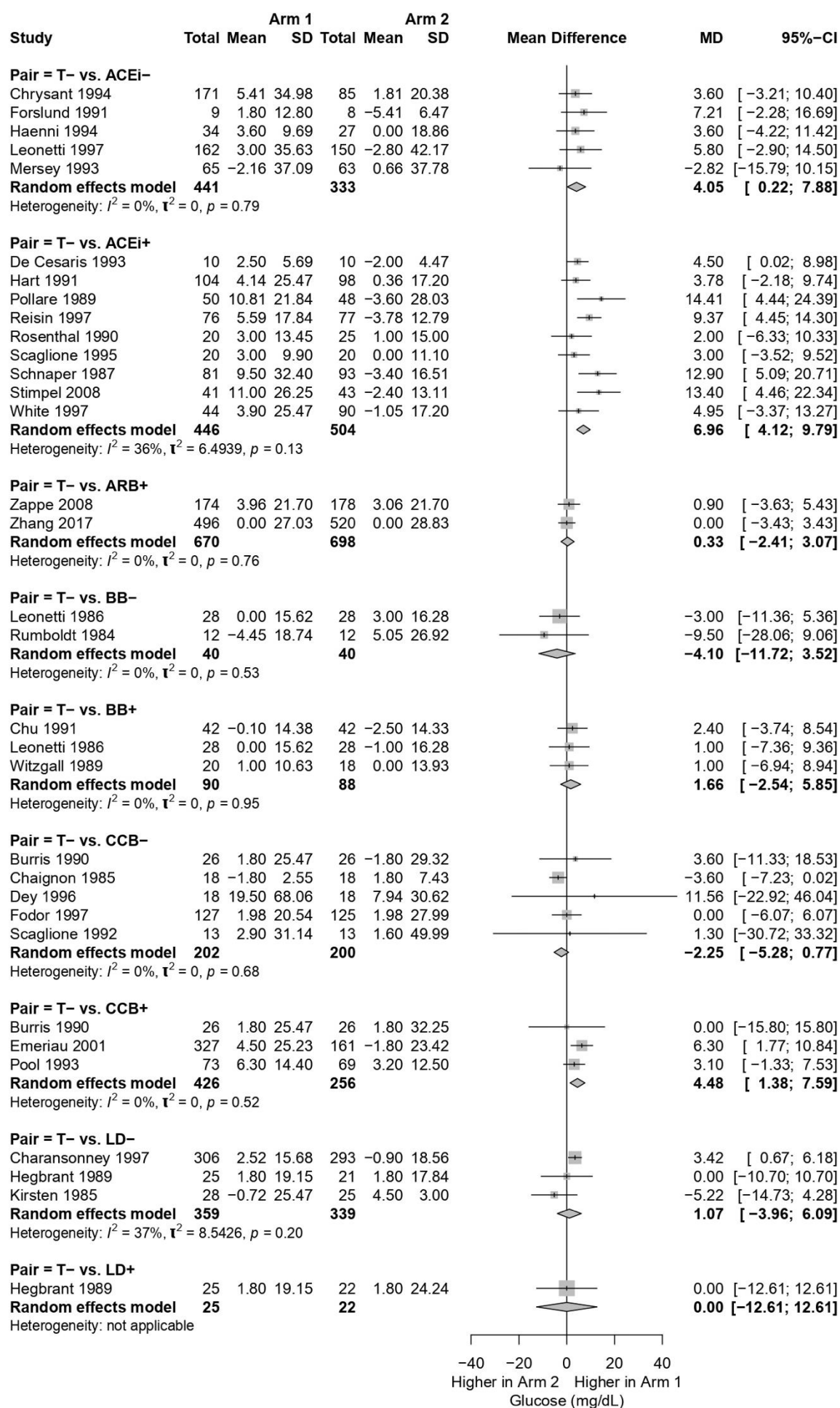


Figure S9D. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

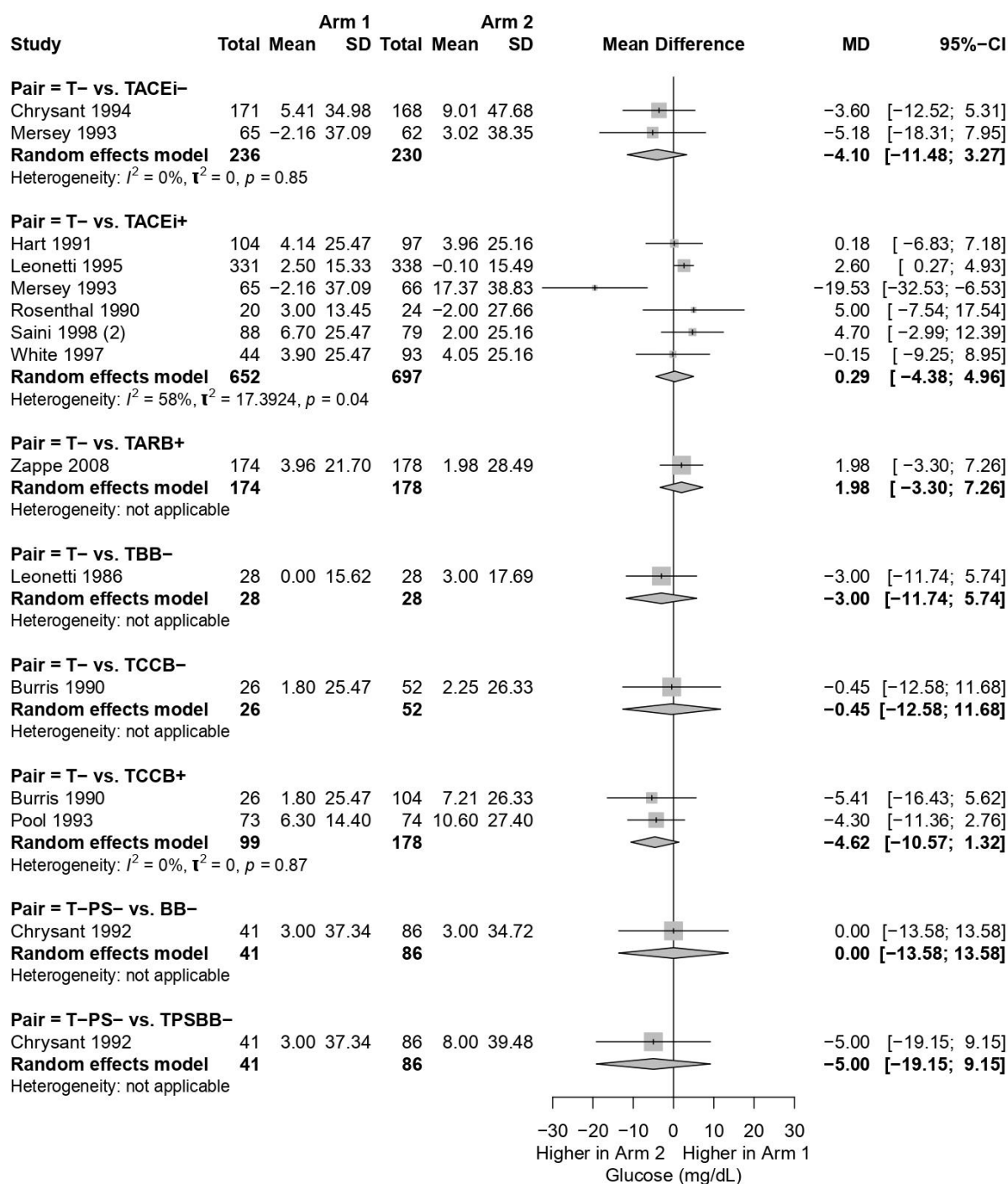


Figure S9E. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

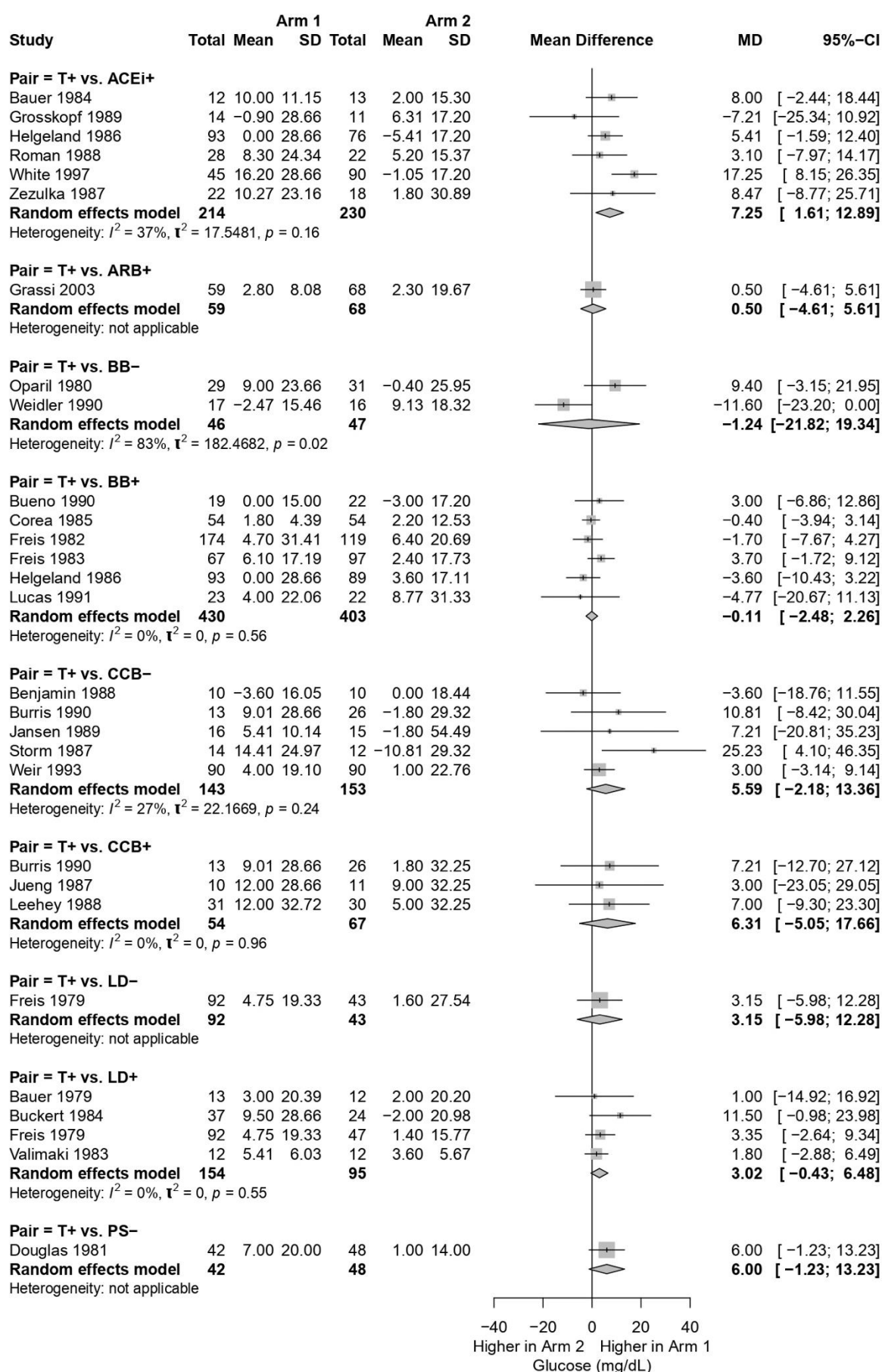


Figure S9F. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

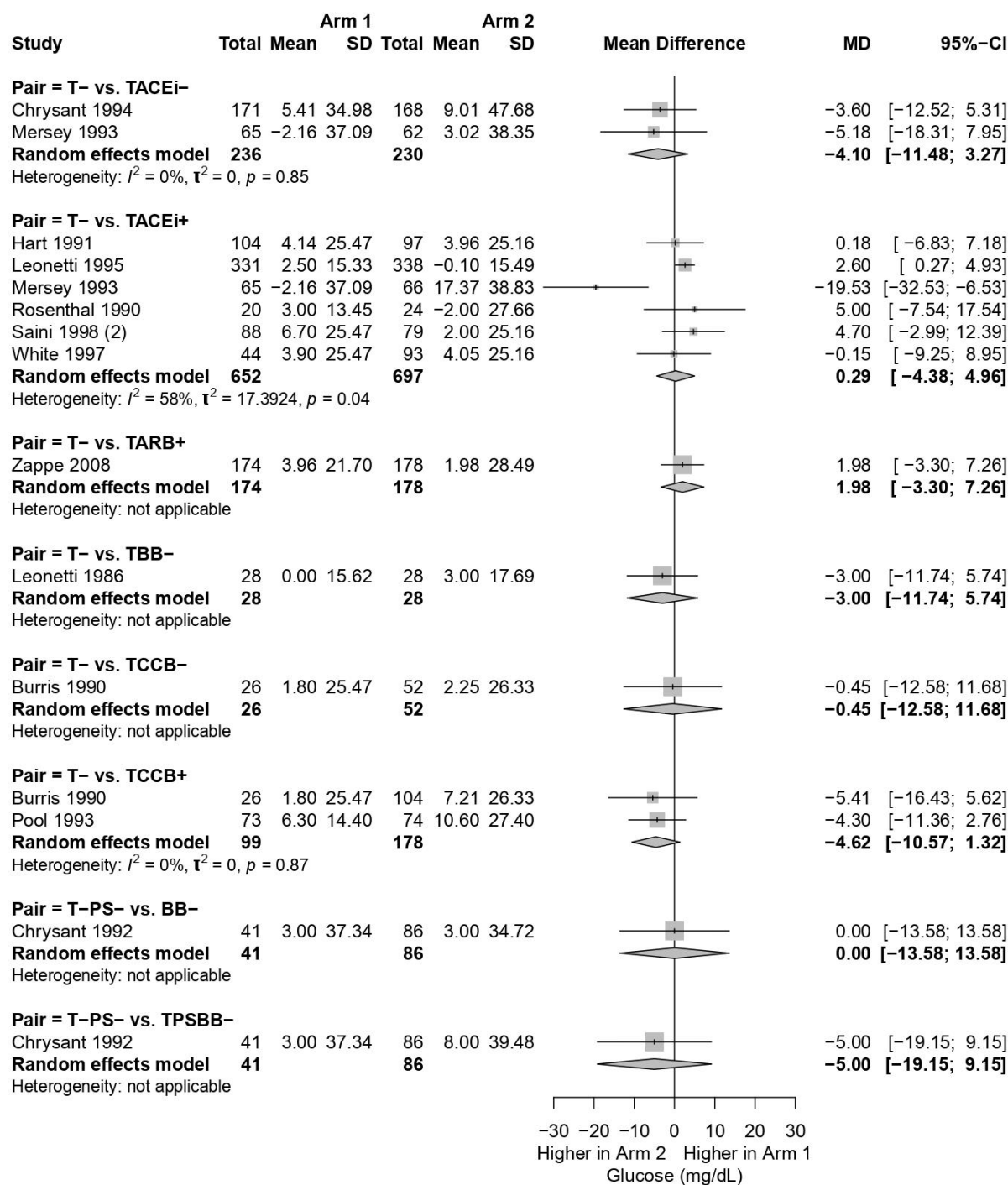


Figure S9G. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

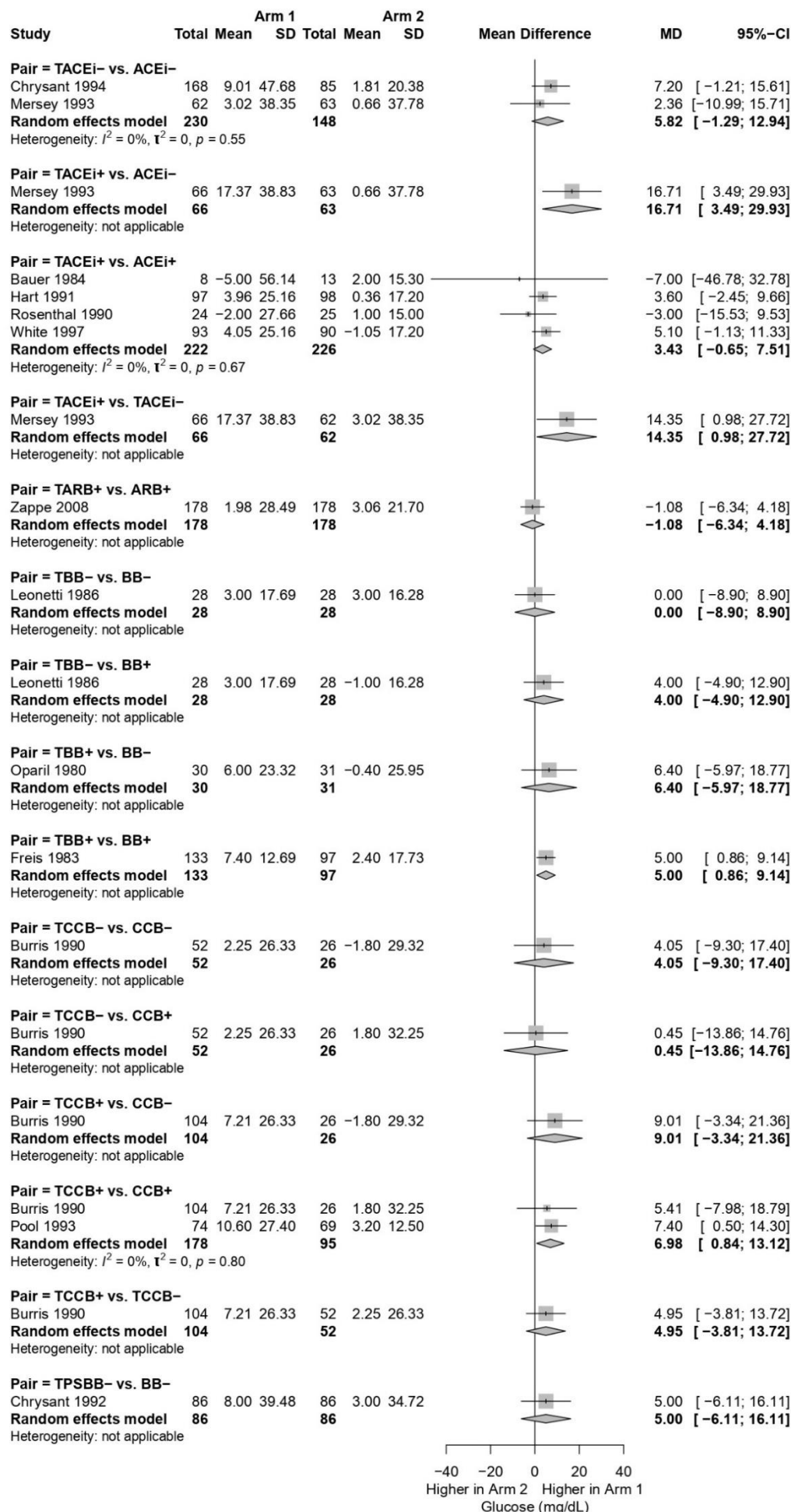


Figure S9H. Forest plot for pairwise meta-analyses (Fasting plasma glucose).

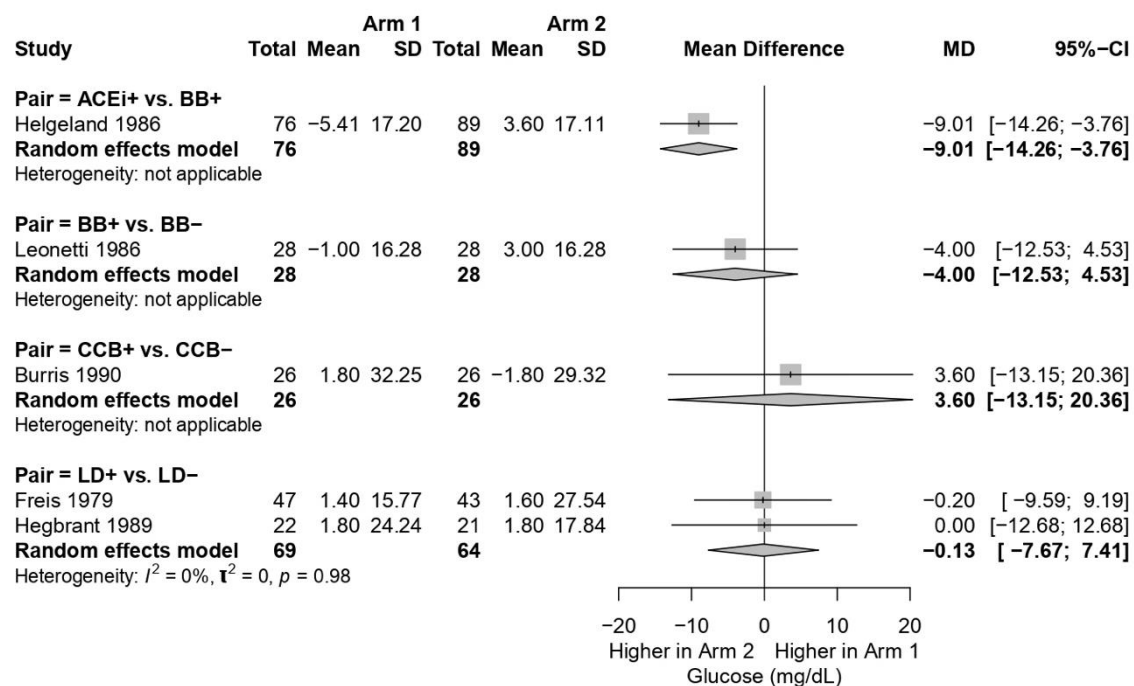


Figure S10A. Forest plot for pairwise meta-analyses (LDL-C).

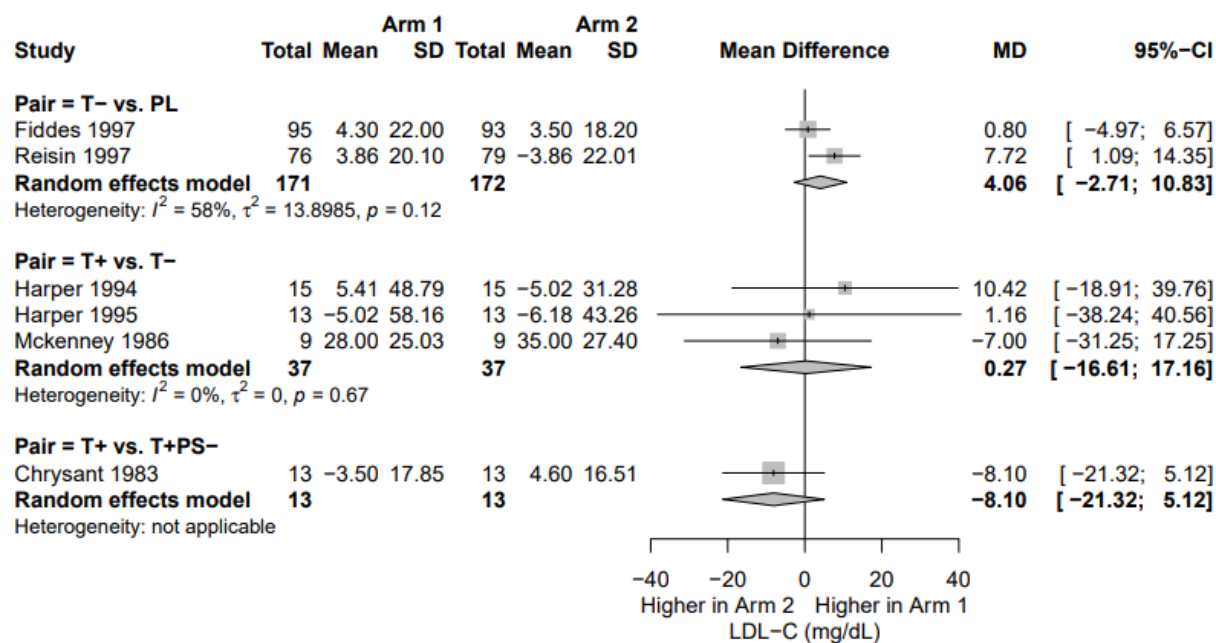


Figure S10B. Forest plot for pairwise meta-analyses (LDL-C).

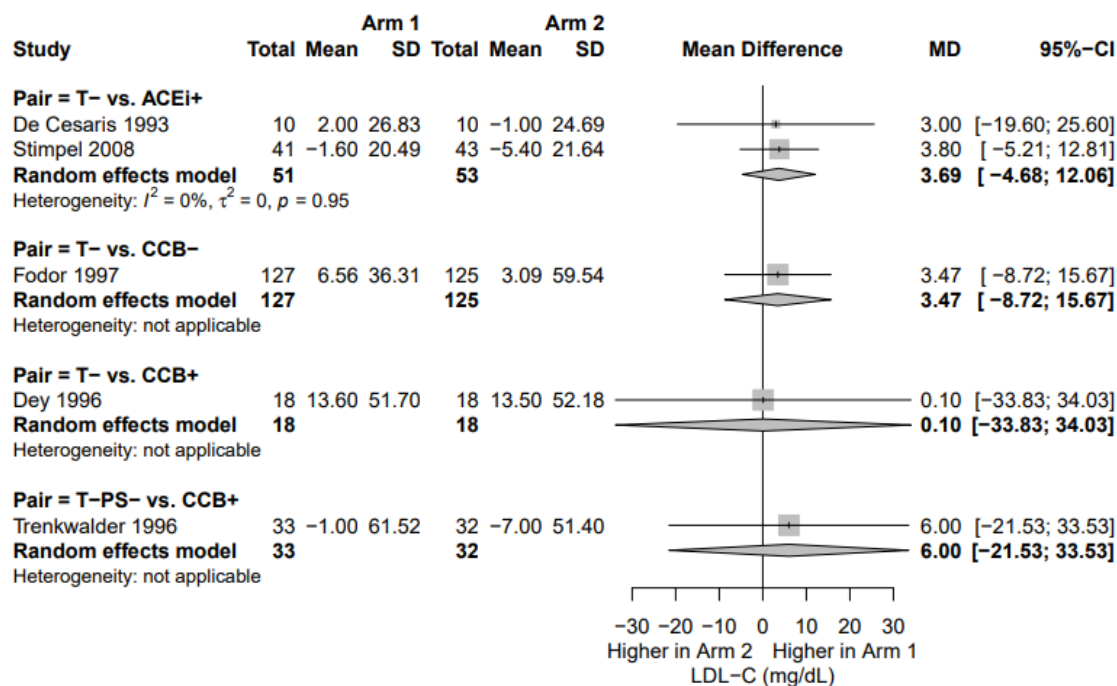


Figure S10C. Forest plot for pairwise meta-analyses (LDL-C).

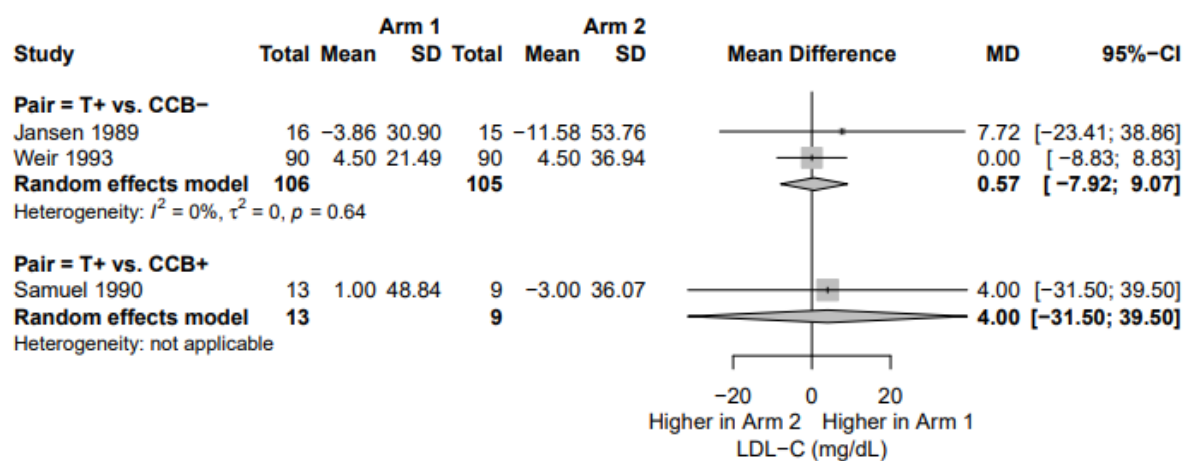


Figure S11A. Forest plot for pairwise meta-analyses (HDL-C).

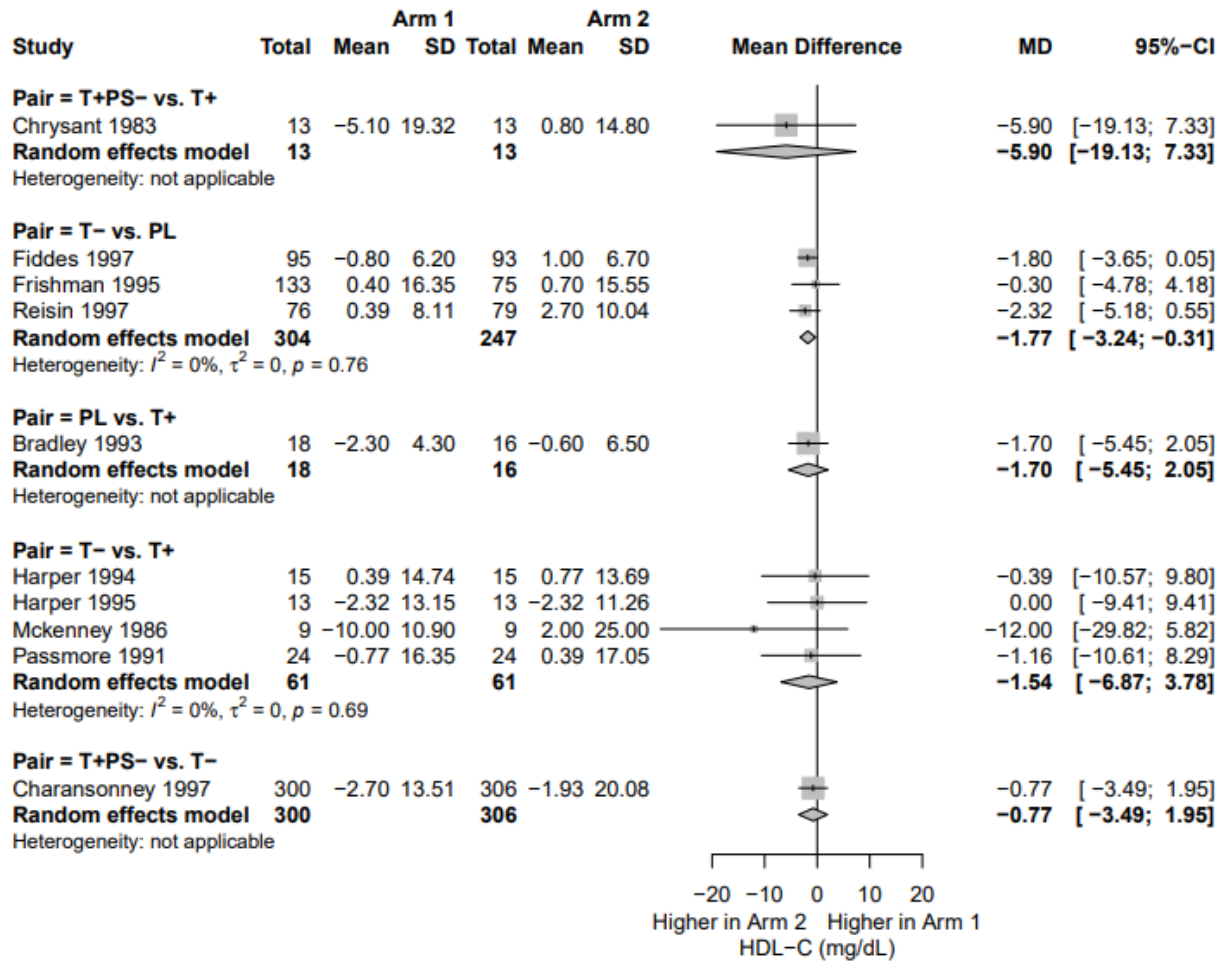


Figure S11B. Forest plot for pairwise meta-analyses (HDL-C).

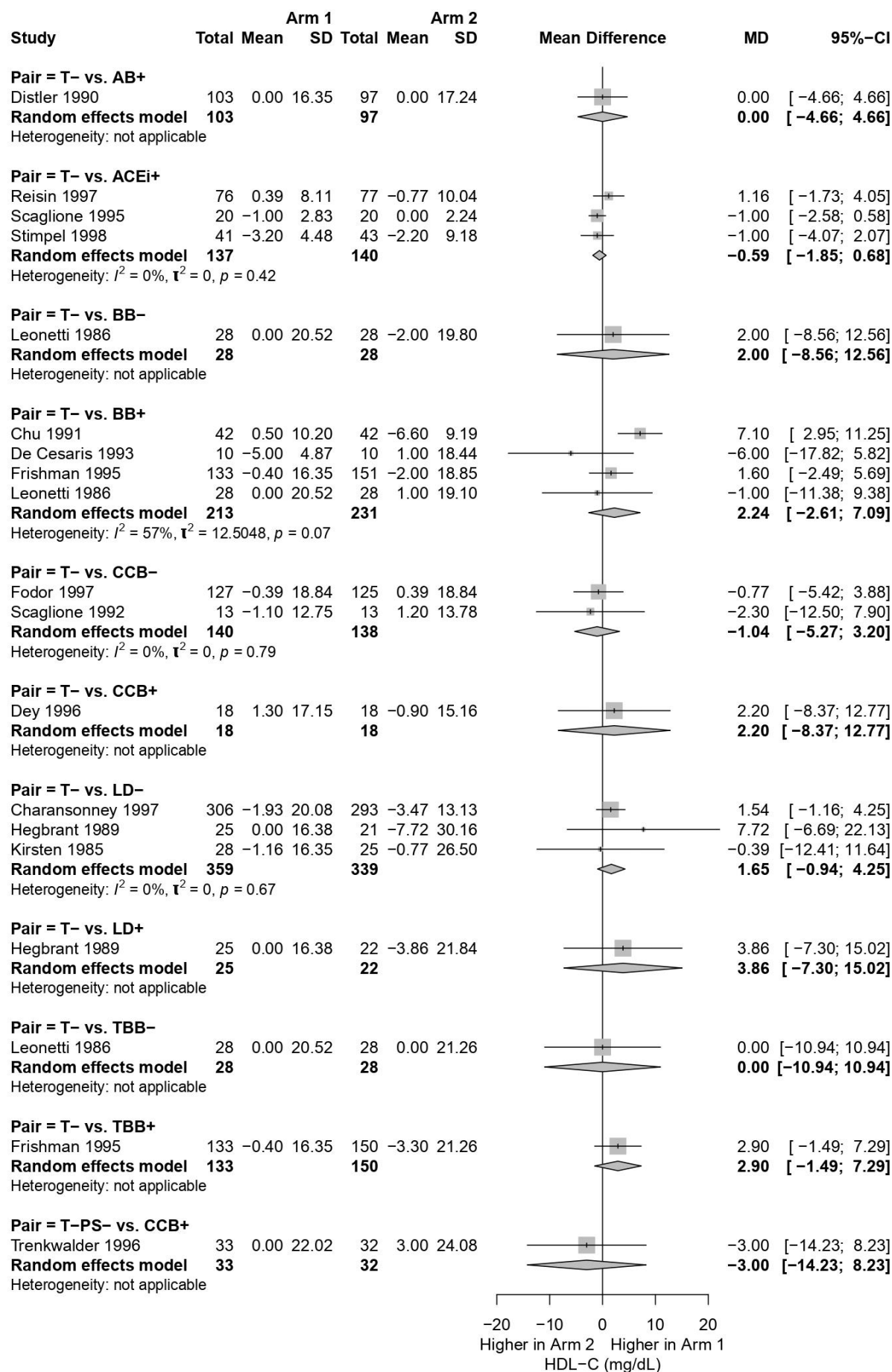


Figure S11C. Forest plot for pairwise meta-analyses (HDL-C).

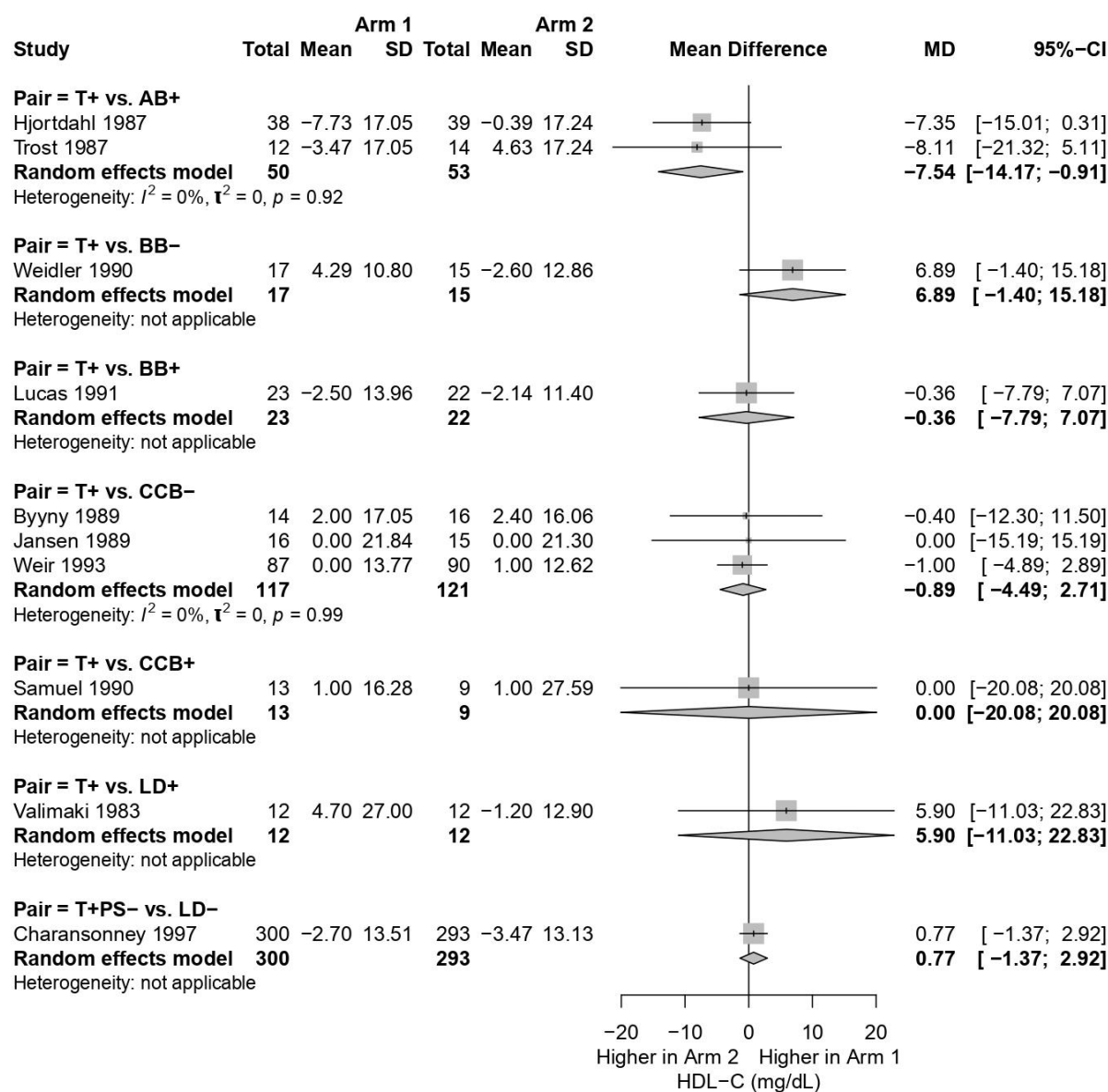


Figure S11D. Forest plot for pairwise meta-analyses (HDL-C).

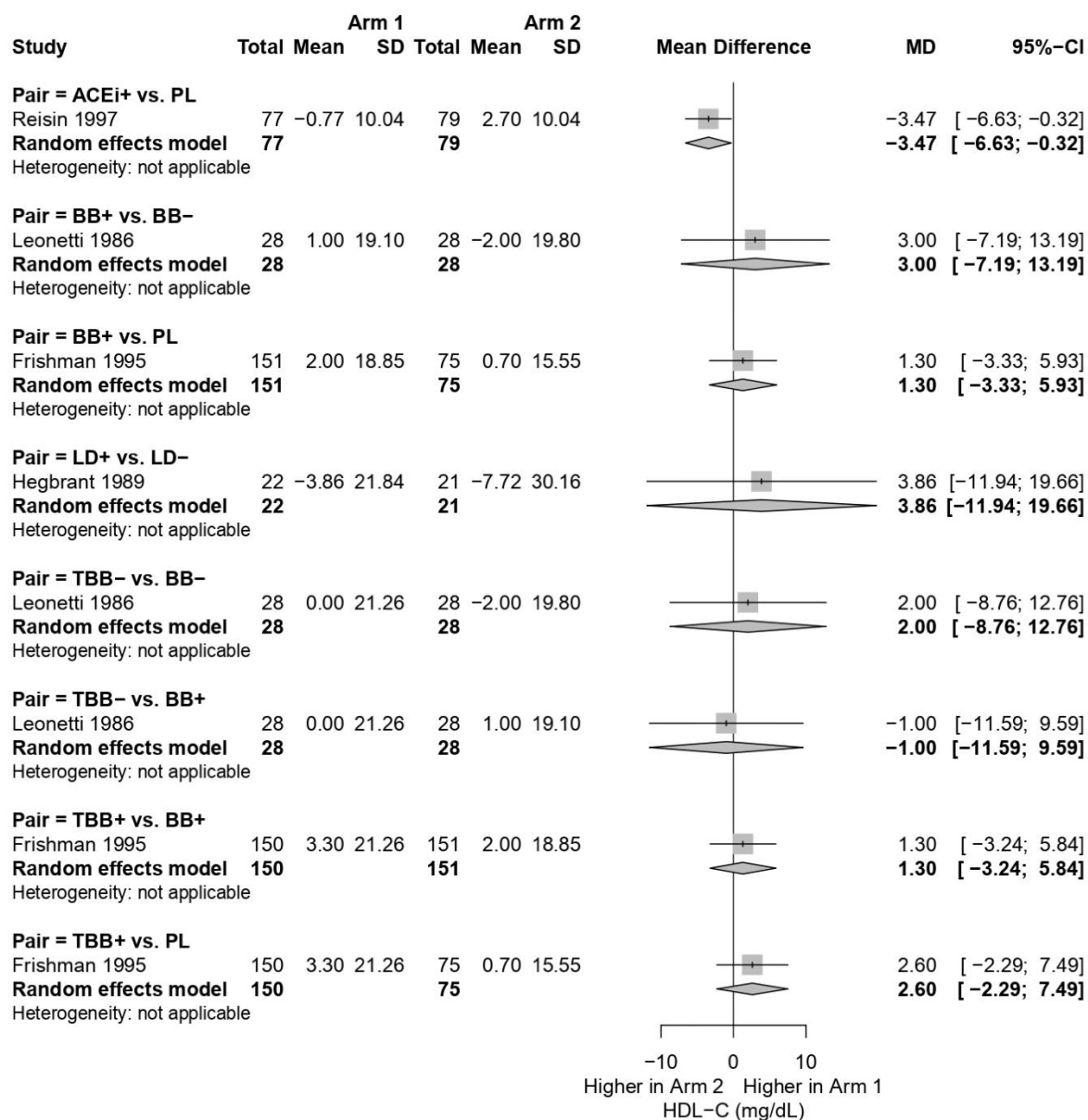


Figure S12A. Forest plot for pairwise meta-analyses (Triglycerides).

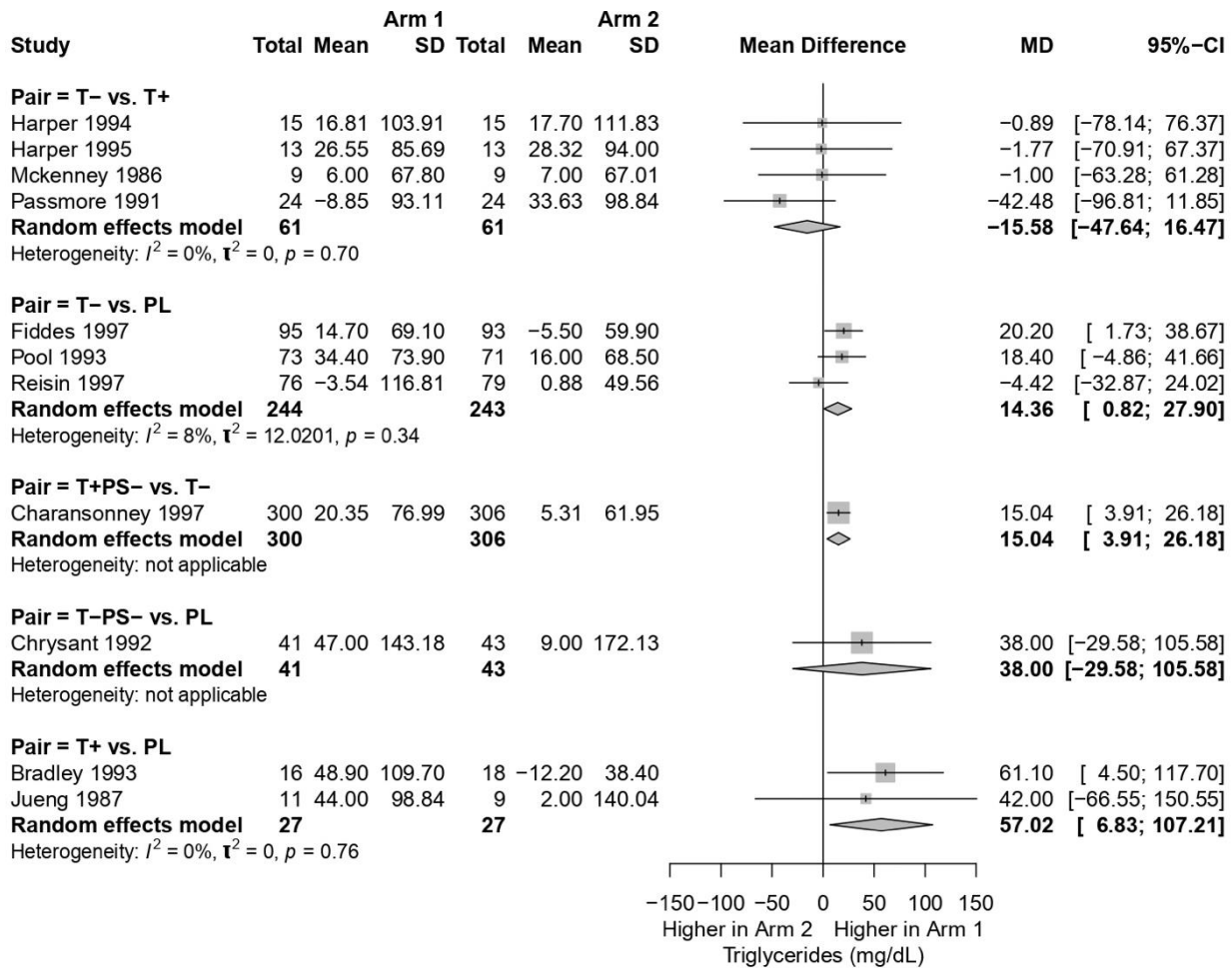


Figure S12B. Forest plot for pairwise meta-analyses (Triglycerides).

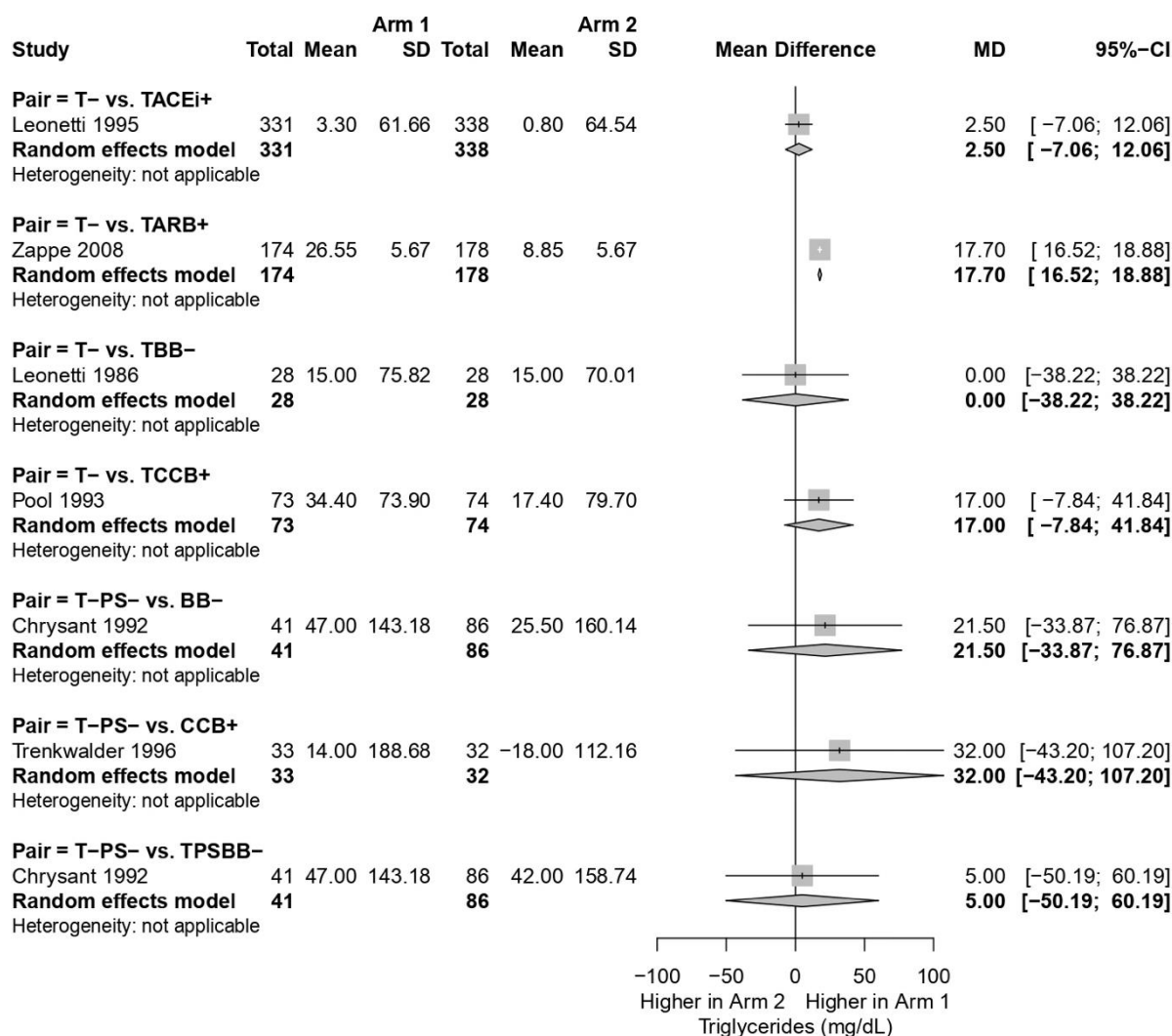


Figure S12C. Forest plot for pairwise meta-analyses (Triglycerides).

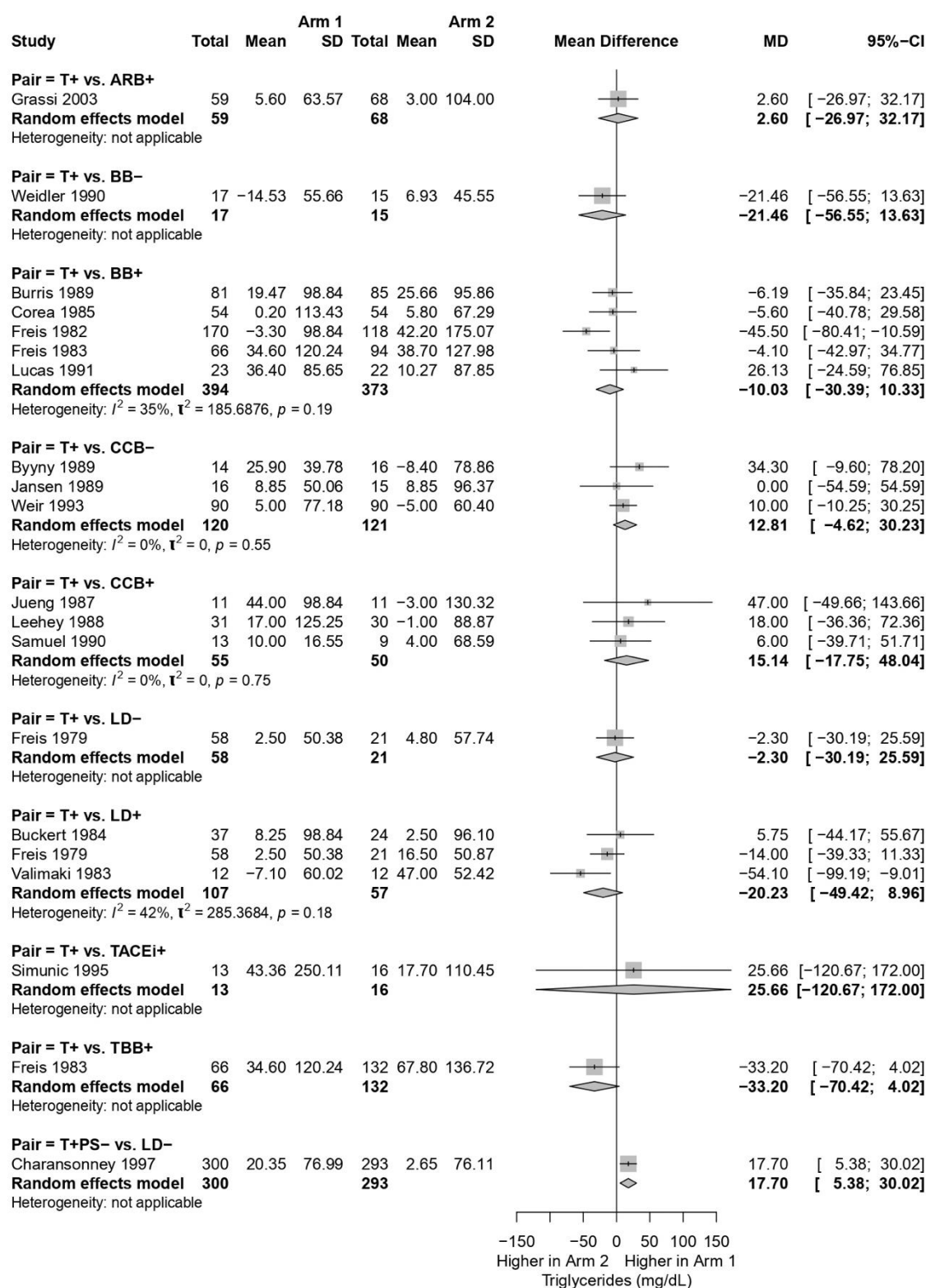


Figure S12D. Forest plot for pairwise meta-analyses (Triglycerides).

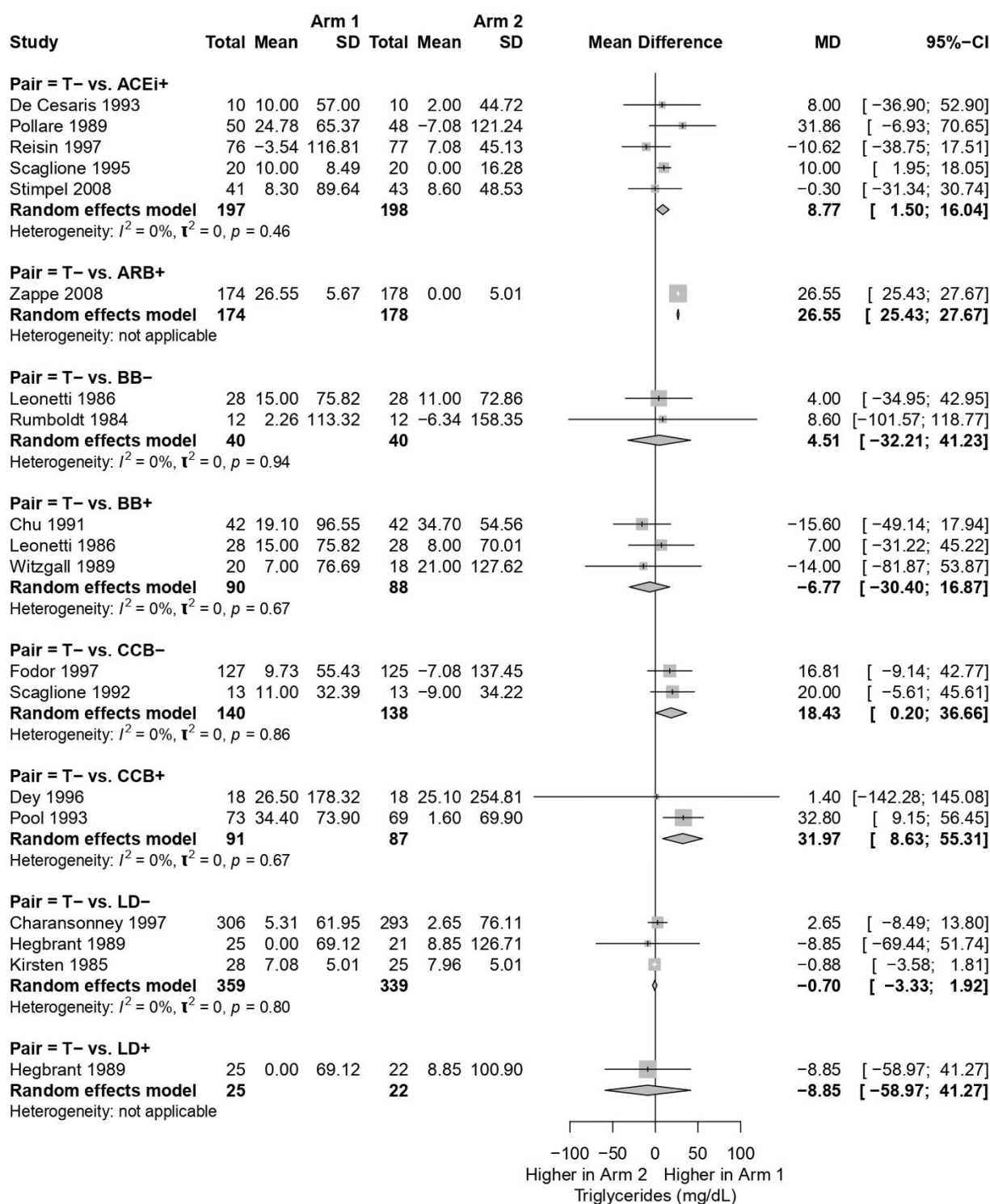


Figure S12E. Forest plot for pairwise meta-analyses (Triglycerides).

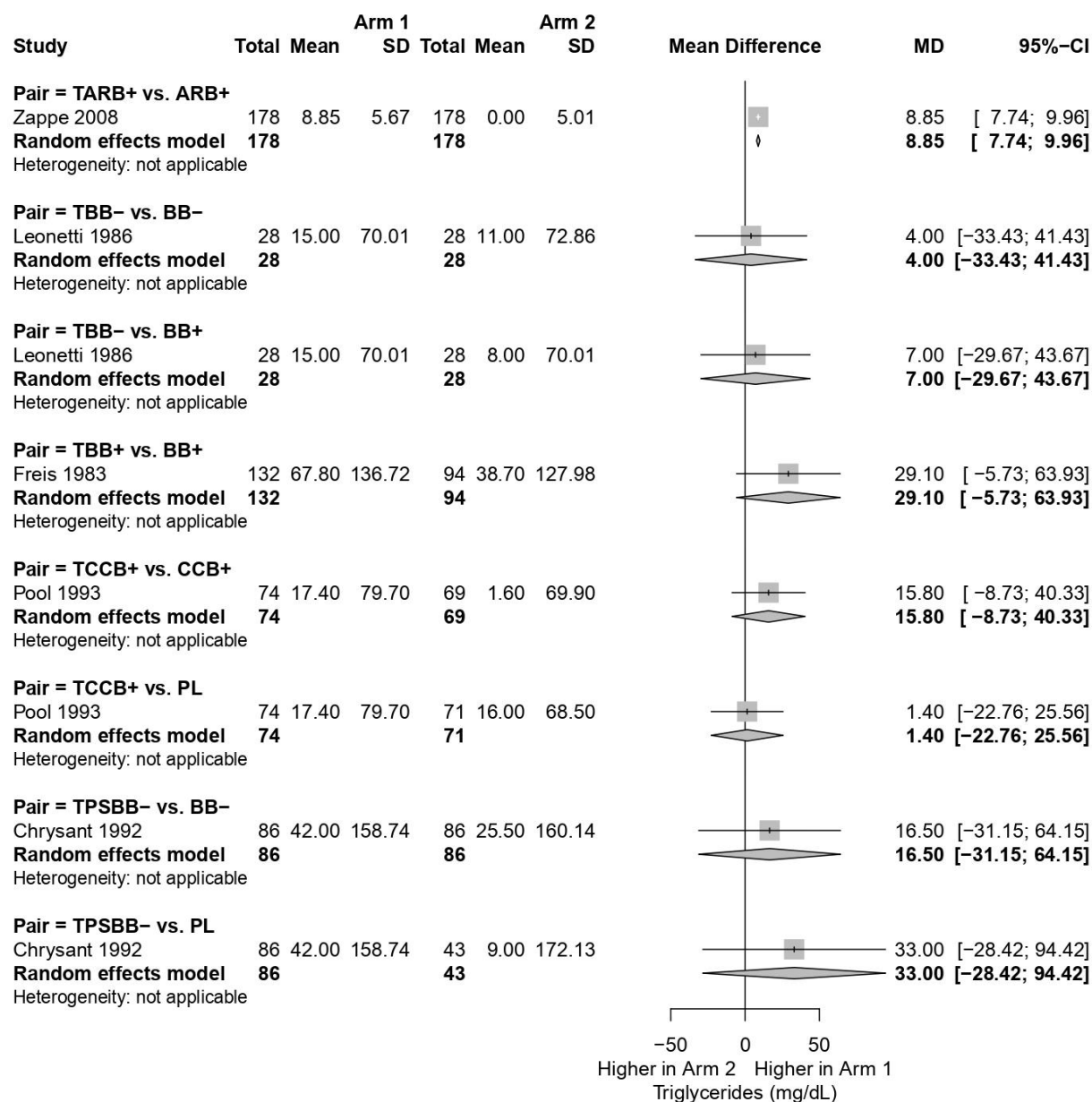


Figure S12F. Forest plot for pairwise meta-analyses (Triglycerides).

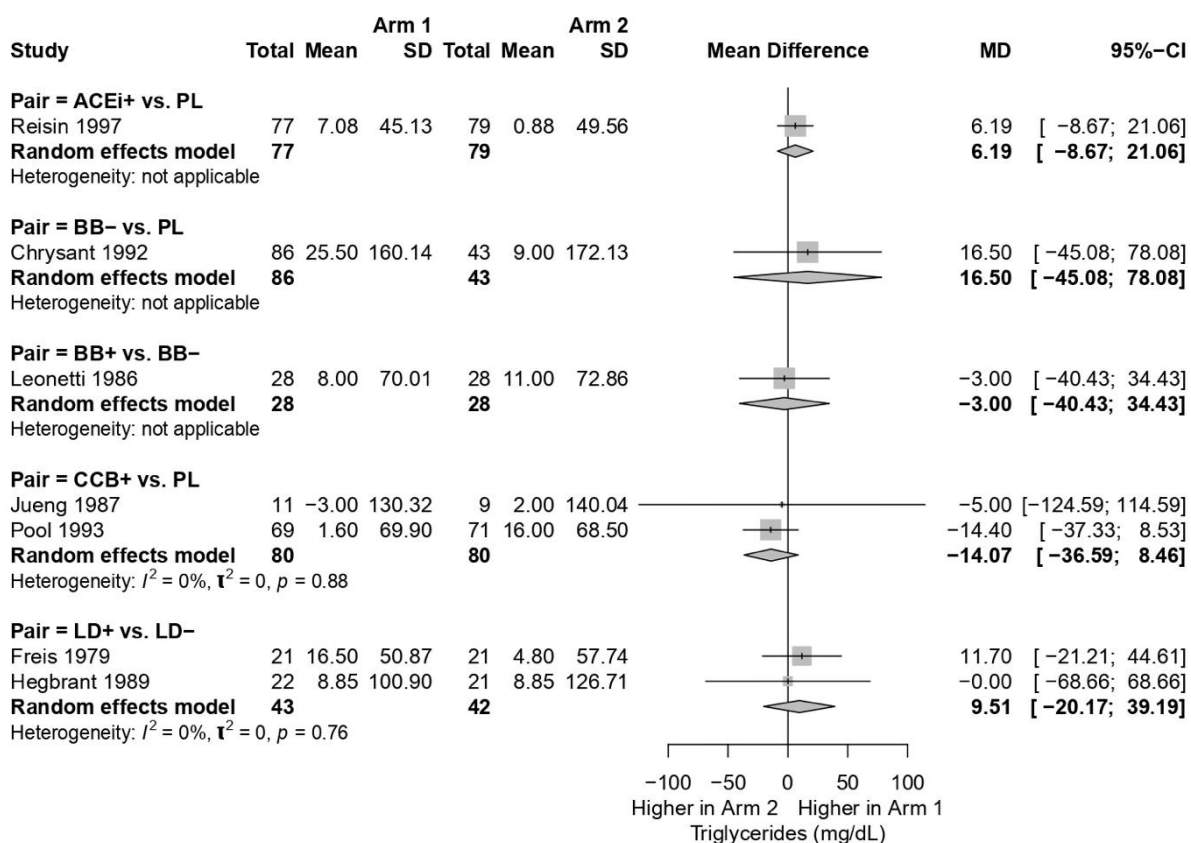


Figure S13A. Forest plot for pairwise meta-analyses (Total cholesterol).

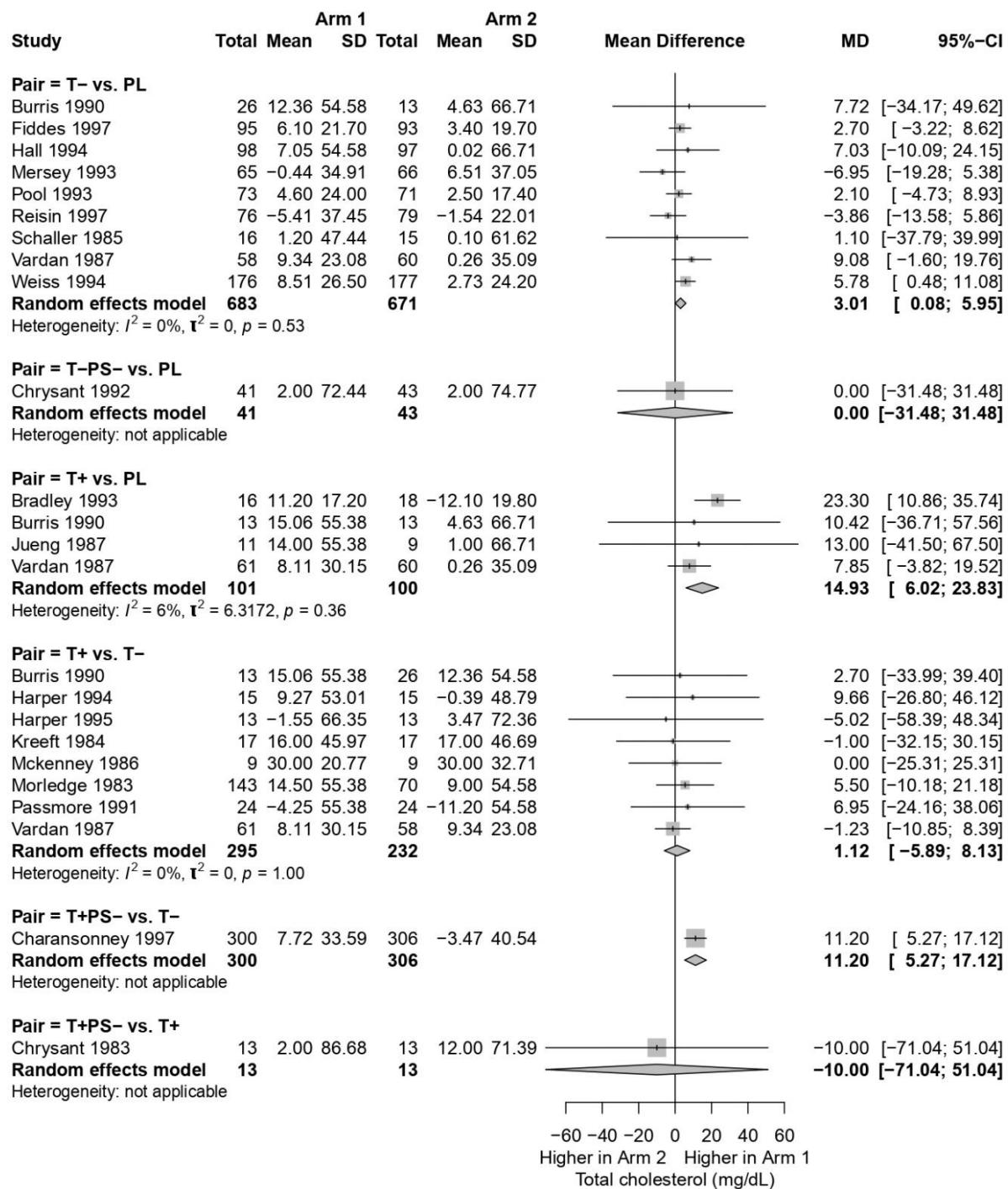


Figure S13B. Forest plot for pairwise meta-analyses (Total cholesterol).

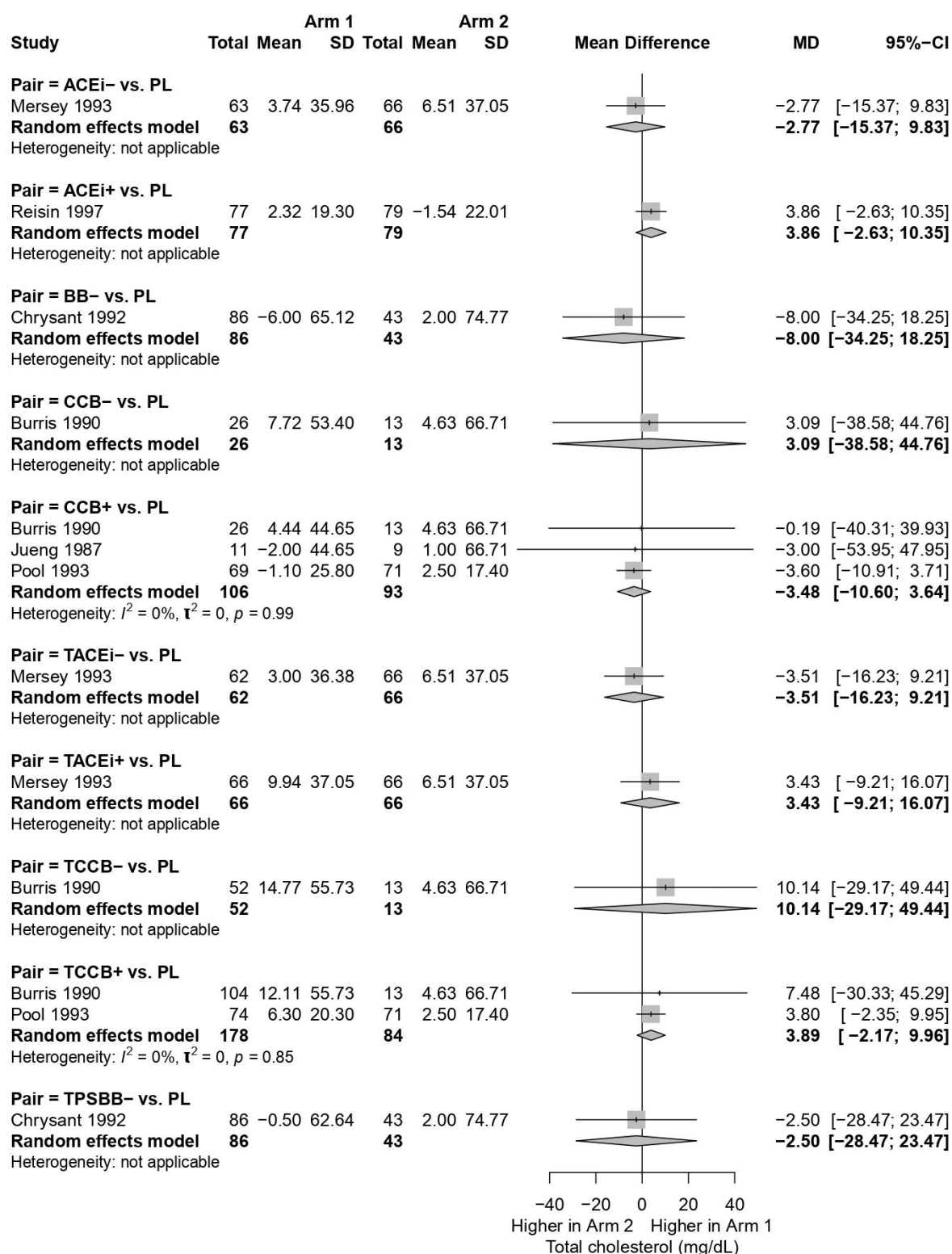


Figure S13C. Forest plot for pairwise meta-analyses (Total cholesterol).

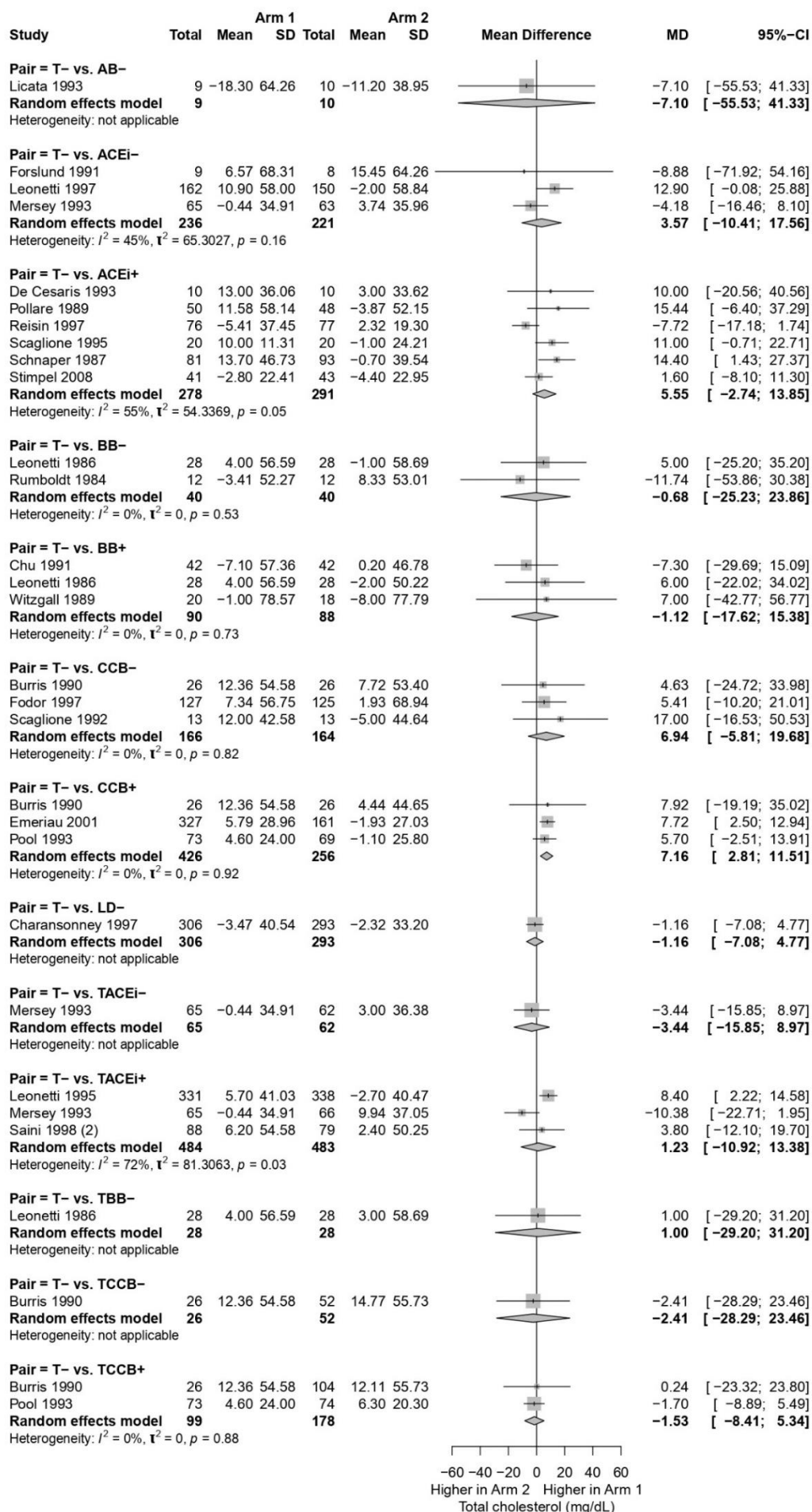


Figure S13D. Forest plot for pairwise meta-analyses (Total cholesterol).

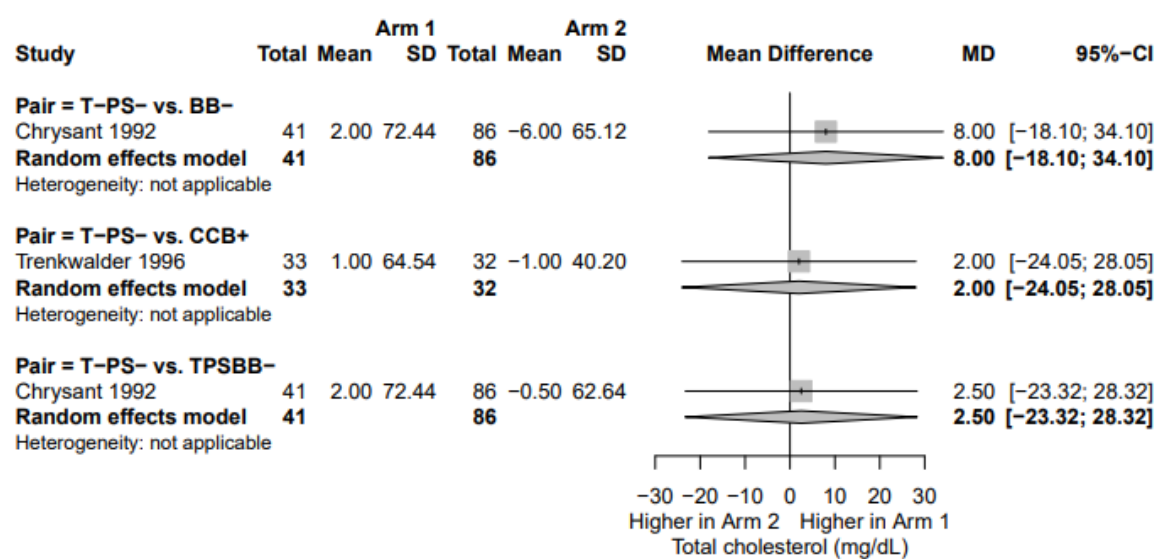


Figure S13E. Forest plot for pairwise meta-analyses (Total cholesterol).

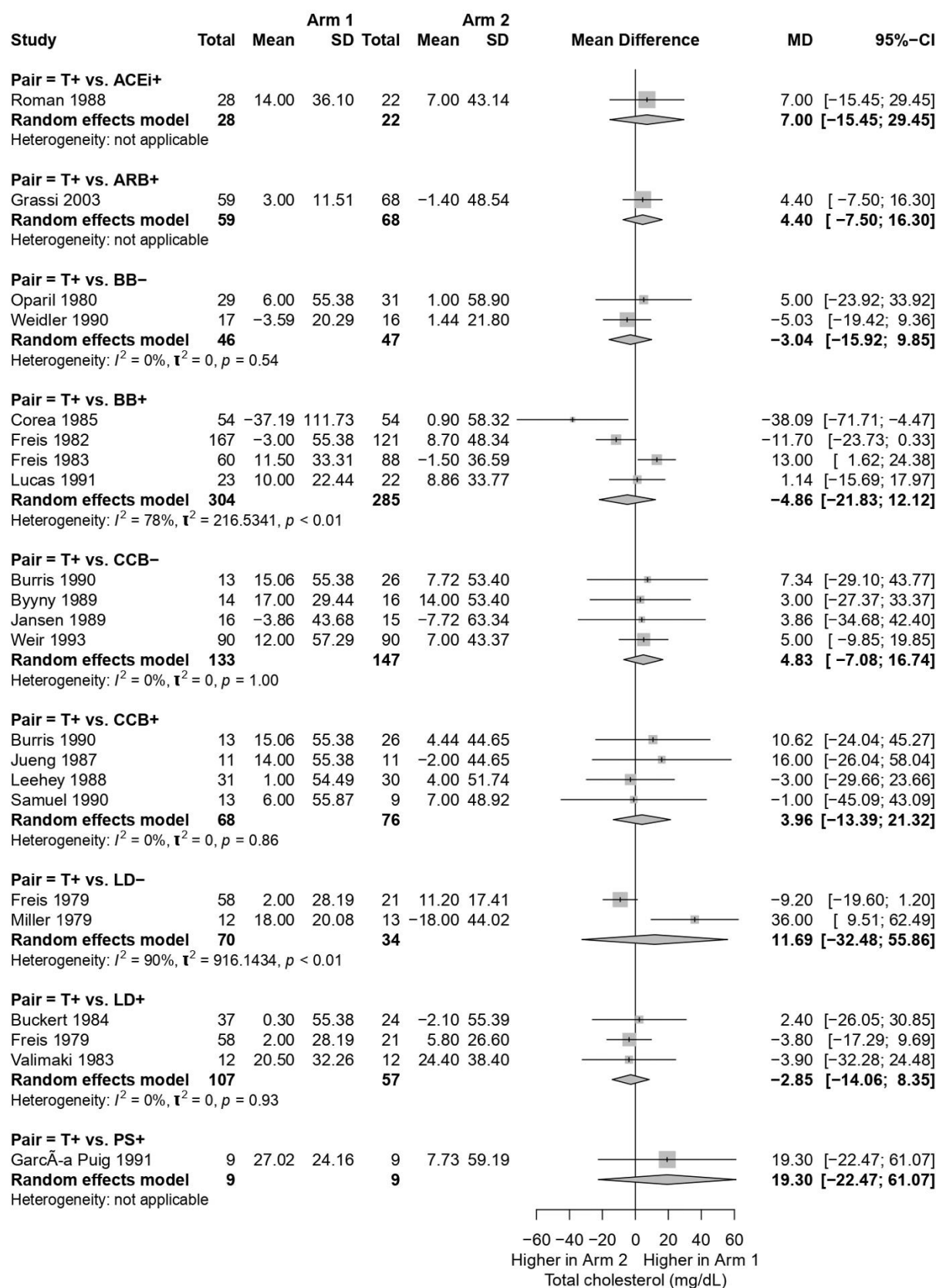


Figure S13F. Forest plot for pairwise meta-analyses (Total cholesterol).

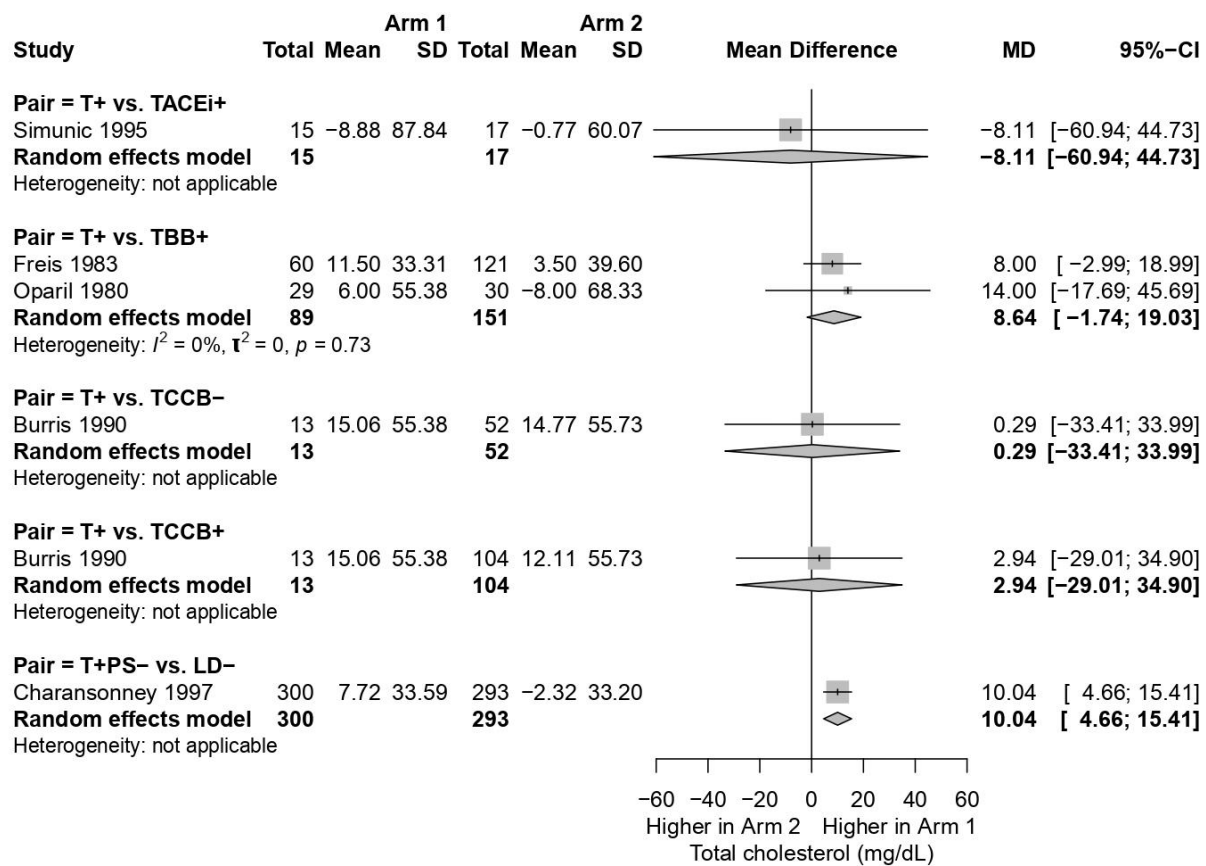


Figure S13G. Forest plot for pairwise meta-analyses (Total cholesterol).

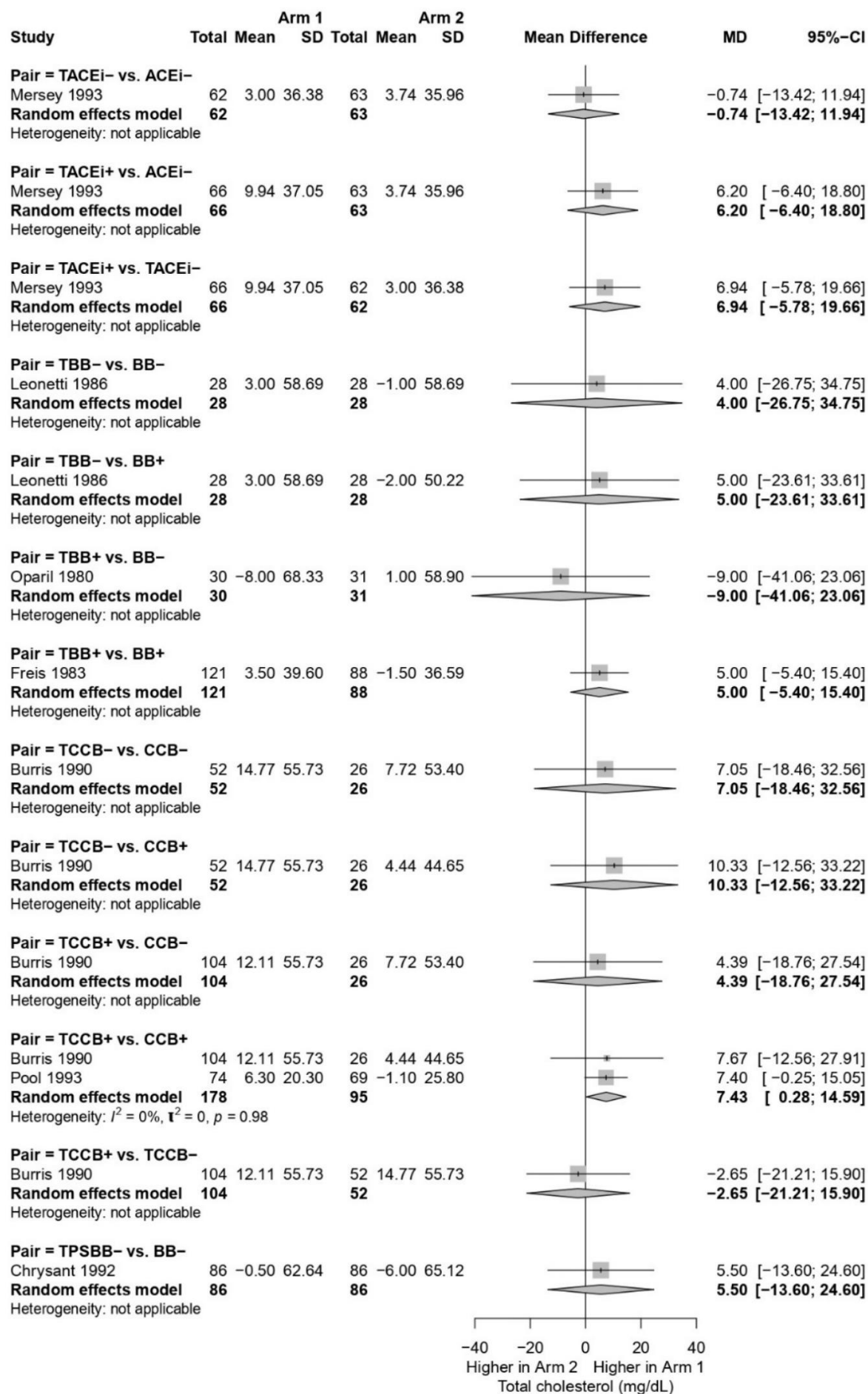


Figure S13H. Forest plot for pairwise meta-analyses (Total cholesterol).

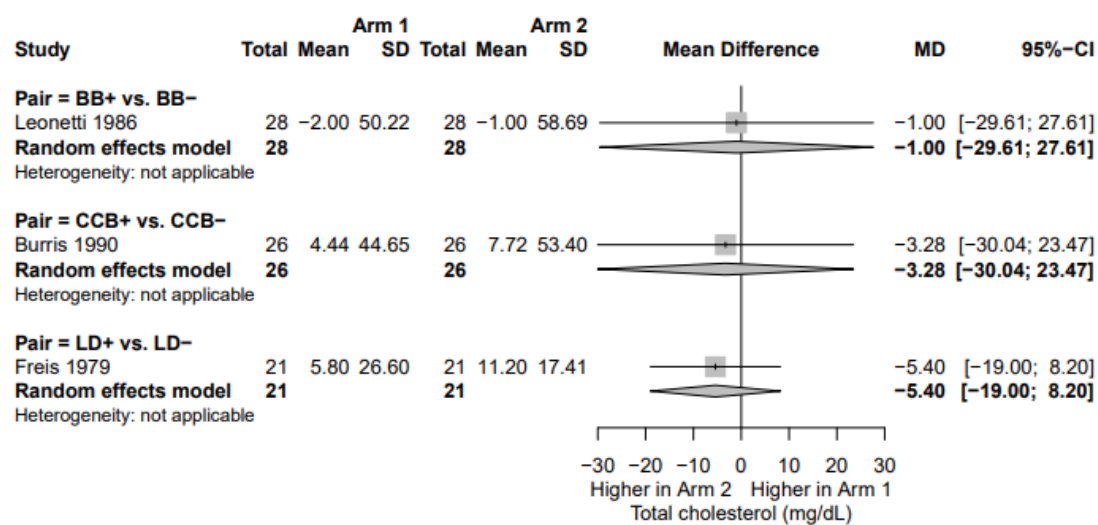


Figure S14. Forest plot for pairwise meta-analyses (HbA1c).

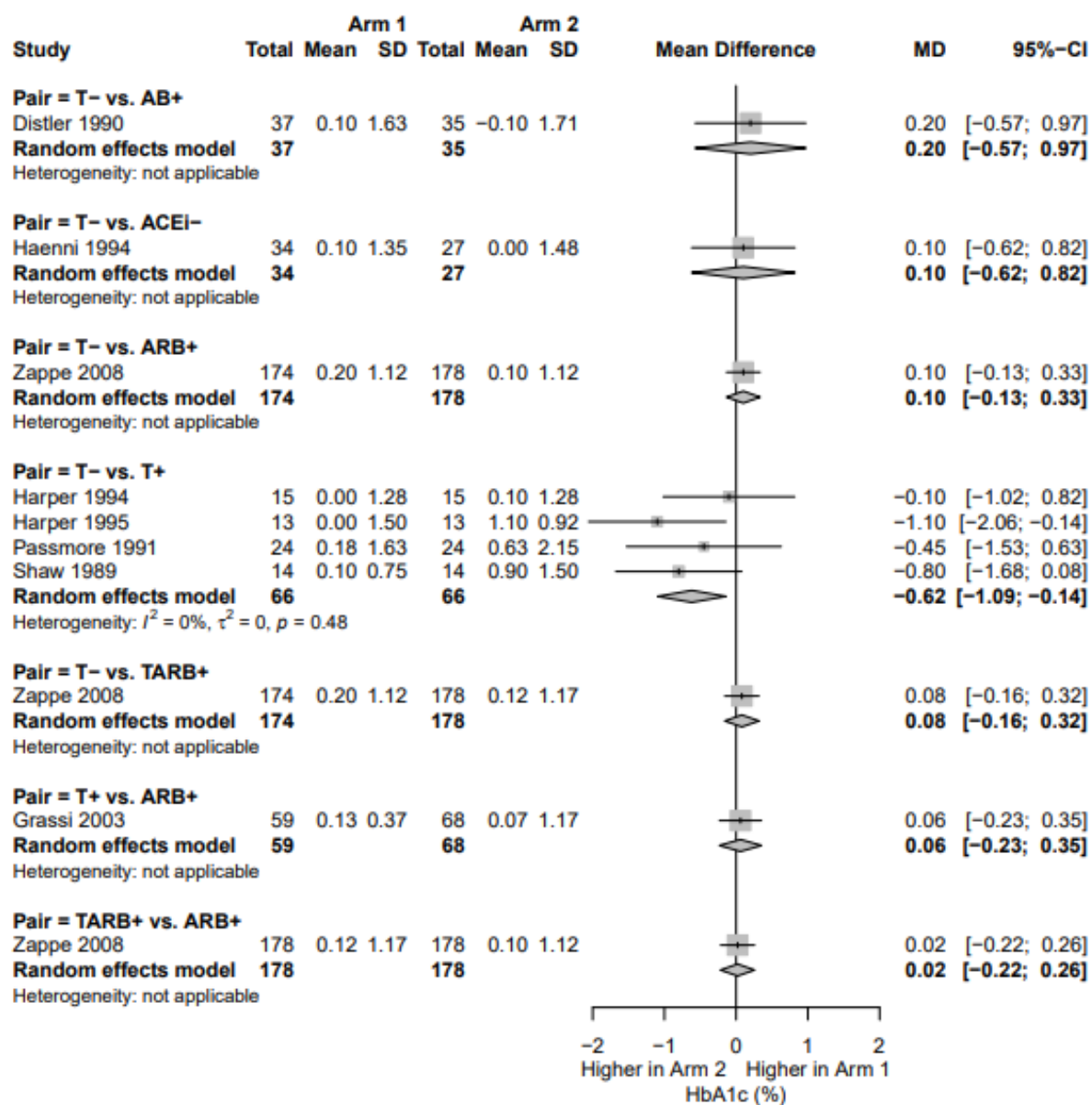


Figure S15. Risk of bias summary of the included studies.

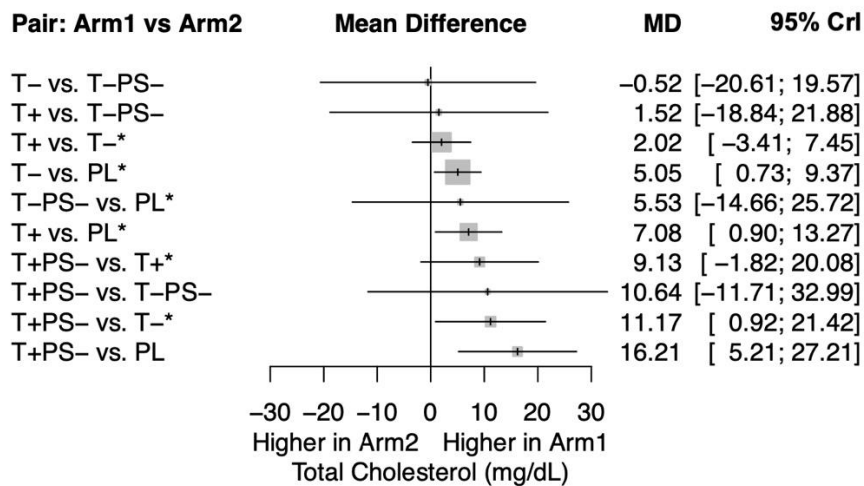
	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Abate 1998	+	?	+	+	+	+	?
Aberg 1981	?	?	?	?	+	+	?
Agabiti-Rosei 1998	?	?	?	?	+	+	?
Ajayi 1989	?	?	?	?	+	+	?
Ambrosioni 1998	?	?	?	?	+	+	?
Amery 1977	?	?	+	+	?	+	+
Andersen 1985	?	?	+	+	+	+	?
Andersson 1984	?	?	?	?	?	+	?
Asplund 1981	?	?	+	+	+	+	?
Ballantyne 1971	?	?	?	?	+	+	?
Basile 2011	?	?	+	+	+	+	+
Bauer 1979	?	?	+	+	+	+	+
Bauer 1984	?	?	?	?	+	+	?
Bayman 1988	?	?	?	?	?	+	?
Benetos 1996	?	?	?	?	+	+	+
Benjamin 1988	?	?	+	+	?	+	+
Benz 1997	?	?	+	+	+	+	?
Bermudez 1982	?	?	?	?	?	+	?
Bichisao 1989	+	?	+	+	+	+	?
Bolzano 1984	?	?	?	?	?	?	?
Bope 1988	+	?	+	+	?	+	?
Boulet 1991	?	?	?	?	+	+	?
Bowlus 1964	?	?	+	+	?	+	?
Bradley 1993	?	?	+	+	?	+	?
Brown 1990	?	?	+	+	+	+	?
Brunelli 1988	?	?	?	?	?	+	?
Buckert 1984	?	?	+	+	+	+	?
Bueno 1990	?	?	+	+	+	+	?
Burris 1988	+	?	?	?	+	+	?
Burris 1989	?	?	?	?	?	+	+
Burris 1990	?	?	?	?	+	+	+
Byyny 1989	?	?	?	?	+	+	?
Capone 1983	?	?	?	?	?	+	?
Carney 1986	?	?	?	?	?	+	+
Celentano 1990	?	?	?	?	?	+	+
Chaignon 1985	?	?	?	?	?	+	?
Charansonney 1997	+	+	+	+	+	+	?
Chrysant 1983	?	?	?	?	?	+	?
Chrysant 1992	?	?	?	?	?	+	?
Chrysant 1994	?	?	?	?	?	+	+
Chrysant 1996	+	?	+	+	+	+	+
Chrysant 2004	?	?	?	?	?	?	+
Chu 1991	?	?	?	?	?	+	?
Chung 2004	?	?	?	?	?	+	+
Clark 1979	?	?	+	+	+	+	?
Clementy 1986	?	?	?	?	?	+	?
Corea 1985	?	?	?	?	?	+	?
Cowling 1986	?	?	?	?	+	+	?
Creytens 1986	?	?	+	+	?	+	?
Curry 1986	?	?	?	?	?	+	?
Custers 1988	?	?	?	?	?	+	?
Dahlof 1993	?	?	?	?	?	+	+
Daniels 1987	?	?	?	?	?	+	?
De Cesaris 1993	?	?	?	?	+	+	?
Dews 2001	?	?	?	?	?	+	?
Dey 1996	+	?	+	+	+	+	+
Distler 1990	?	?	+	+	?	+	?
Djian 1990	?	?	+	+	?	+	?
Dorow 1986	?	?	?	?	?	+	?
Douglas 1981	?	?	?	?	?	+	?
Douglas-Jones 1984	?	?	?	?	+	+	?
Drayer 1995	?	?	?	?	+	+	?
Dupont 1979	?	?	?	?	+	+	?
Durley 1981	?	?	?	?	?	+	?
Emeriau 2001	?	?	?	?	+	+	+
Fagan 1989	?	?	?	?	?	+	+
Fariello 1990	?	?	?	?	?	+	?
Ferguson 1977	?	?	+	+	?	+	?
Fernandes 2016	+	+	+	+	+	+	+
Fernandez 1980	?	?	+	+	?	+	?
Fernandez 1982	?	?	?	?	?	+	?
Fernandez 1994	?	?	+	+	?	?	?
Fiddes 1997	?	?	?	?	?	+	?

Fodor 1997	?	?	?	?	?	+	-
Forstlund 1991	?	?	?	?	?	+	?
Fotiu 1974	?	?	+	+	?	+	?
Frei 1994	?	?	?	?	+	-	?
Freier 1984	?	?	?	?	?	+	?
Freis 1979	?	?	?	?	?	+	-
Freis 1982	?	?	+	+	+	+	-
Freis 1983	?	?	+	+	+	+	?
Frewin 1992	?	?	?	?	+	+	?
Frishman 1994	?	?	+	+	?	?	?
Frishman 1995	?	?	?	?	?	-	-
Galderisi 1990	?	?	?	?	+	?	?
García Puig 1991	+	?	?	?	+	?	?
Genthon 1994	?	?	?	?	-	?	-
Giles 1987	?	?	?	?	-	?	?
Gillies 1978	?	?	?	?	-	?	?
Goldberg 1989	+	?	+	+	-	?	-
Gostick 1989	?	?	?	?	+	?	?
Grassi 2003	?	?	?	?	?	?	-
Grimm 2002	?	?	?	?	+	?	?
Grosskopf 1989	?	?	?	?	+	?	-
Habte 1992	+	?	+	+	-	?	?
Haenni 1994	?	?	?	?	+	?	-
Hall 1994	?	?	?	?	+	?	-
Harper 1994	+	?	+	+	+	+	?
Harper 1995	?	?	+	+	?	+	+
Hart 1991	?	?	?	?	?	?	?
Heesen 1998	?	+	?	?	+	?	?
Hegbrant 1989	?	?	+	+	+	?	?
Hegner 1997	?	?	?	?	+	?	?
Helgeland 1986	?	?	?	?	-	?	-
Hickey 1982	?	?	?	?	-	?	?
Hjortdahl 1987	+	?	?	?	?	?	?
Hornung 1983	+	?	+	?	+	?	-
Hulley 1986	?	?	?	?	-	+	?
Hunyor 1975	+	+	?	?	-	?	-
Isles 1999	?	?	?	?	+	?	-
Izzo 2011	?	?	?	?	-	+	-
Jansen 1989	?	?	?	?	+	?	-
Jiang 2007	?	?	?	?	-	?	?
Jounela 1994	+	?	+	+	+	?	?
Jueng 1987	?	?	?	?	+	?	-
Kaplan 1988	+	?	?	?	-	?	-
Kayanakis 1987	?	?	?	?	+	?	?
Khder 1998	?	?	?	?	+	?	?
Kirsten 1985	?	?	?	?	-	?	?
Klingbeil 2003	?	?	?	?	+	?	-
Kochar 1987	?	?	?	?	-	?	?
Kochar 1999	?	?	?	?	+	?	-
Kool 1995	?	?	?	?	+	?	?
Kreeft 1983	?	?	?	?	?	?	?
Kreeft 1984	?	?	+	+	-	?	-
Lacourciere 1989	?	?	?	?	+	?	?
Lacourciere 1994	?	?	?	?	-	?	-
Lacourciere 1994a	?	?	?	?	+	?	-
Landmark 1995	?	?	?	?	+	?	?
Lang 1991	?	?	?	?	-	?	?
Langdon 1991	?	?	?	?	+	?	?
Larochelle 1985	+	+	+	+	+	?	-
Lawton 1979	?	?	?	?	-	?	+
Leary 1988	?	?	+	+	+	?	+
Leehey 1988	?	?	+	+	-	?	-
Lehrl 2000	?	?	?	?	-	?	?
Lemieux 1978	?	?	+	+	-	?	-
Lenz 1994	?	?	?	?	+	?	-
Leon 1983	?	?	?	?	+	?	?
Leonetti 1986	?	?	+	+	-	?	?
Leonetti 1989	?	?	?	?	-	?	?
Leonetti 1995	?	?	?	?	+	?	?
Leonetti 1997	?	?	?	?	+	?	?
Lewis 1985	?	?	?	?	+	?	?
Licata 1993	?	?	?	?	+	?	?
Light 1983	?	?	?	?	-	?	-
Lochaya 1985	?	?	?	?	+	?	?
London 2006	?	?	?	?	+	?	?
Lucas 1985	?	?	?	?	+	?	?
Lucas 1991	?	?	?	?	-	?	?
Lumme 1993	?	?	?	?	+	?	?
Luther 1989	?	?	?	?	+	?	?
MacKay 1996	?	?	?	?	+	?	?
Mackenzie 2009	?	?	?	?	-	?	-
Malmqvist 2000	?	?	?	?	-	?	-
Mammarella 1989	?	?	?	?	-	?	?
Manning 1996	?	?	?	?	+	?	?

Manolis 2004	?	?	?	?	+	?	-
Marmor 1993	?	?	?	?	-	?	?
Maroko 1989	?	?	+	?	-	?	-
Materson 1993	?	?	?	?	-	?	+
McCarron 1984	?	?	?	?	?	?	?
McClennen 1998	?	?	?	?	+	?	-
McGill 2001	+	+	?	?	+	?	?
McKenney 1986	?	?	+	?	-	?	?
McMahon 1975	+	?	+	?	+	+	?
McVeigh 1988	+	?	+	?	+	+	?
Mersey 1993	?	?	?	?	?	+	-
Meyer 1994	?	?	?	?	?	-	?
Miller 1979	?	?	?	?	?	+	-
Mohanty 1988	?	?	?	?	?	-	?
Moncloa 1980	?	?	?	?	+	-	?
Morledge 1983	?	?	?	?	?	+	?
Morledge 1986	+	?	?	?	?	-	-
Moser 1981	?	?	?	?	?	-	?
Moser 1985	?	?	?	?	?	-	?
Moser 1991	?	?	?	?	?	-	-
Motolese 1980	?	?	+	+	?	-	?
Muiesan 1976	?	?	+	+	?	-	-
Muiesan 1987	?	?	?	?	?	-	?
Muldoon 2002	?	?	+	+	?	+	+
Myers 1987	?	?	+	+	+	-	-
Myers 2000	?	?	?	?	?	+	?
Nadeau 1980	?	?	+	+	?	+	-
Nash 1977	?	?	+	+	?	+	?
Nemati 1977	?	?	?	?	+	+	?
Neutel 2008	?	?	?	?	?	+	-
Noble 1979	?	?	?	?	?	+	?
Notghi 1987	?	?	?	?	?	-	?
Obel 1990	?	?	+	+	?	-	-
Ogilvie 1983	?	?	?	?	?	+	?
Oparil 1980	?	?	+	+	?	+	-
Otterstad 1992	?	?	+	+	-	+	?
Otterstad 2000	?	?	?	?	+	-	?
Papademetriou 1997	?	?	?	?	?	+	-
Papademetriou 2000	?	?	?	?	?	+	?
Papademetriou 2006	+	+	+	+	?	-	-
Parati 2006	?	?	?	?	+	-	-
Parhofer 2010	?	?	?	?	?	-	-
Passmore 1991	?	?	+	+	+	+	?
Persson 1996	?	?	?	?	?	-	?
Petersson 1984	?	?	?	?	+	?	?
Philipp 1997	?	?	?	?	?	-	?
Plante 1983	?	?	+	+	?	+	?
Pollare 1989	?	?	?	?	+	+	+
Pool 1987	?	?	?	?	?	-	?
Pool 1993	+	+	+	+	?	+	-
Pool 1997	?	?	?	?	?	-	-
Pool 2007	?	?	?	?	?	-	-
Prisant 2000	?	?	+	+	?	+	-
Ram 1994	?	?	?	?	?	-	?
Reisin 1997	?	?	?	?	?	+	-
Roberts 1979	?	?	?	?	?	-	?
Roman 1998	?	?	?	?	?	+	-
Romero 1995	?	?	?	?	?	+	-
Roque 1996	?	?	?	?	?	-	?
Rosendorff 1980	?	?	?	?	?	+	?
Rosenthal 1990	?	?	?	?	?	+	?
Rumboldt 1984	?	?	?	?	+	+	?
Safar 1994	?	?	?	?	?	-	?
Saini 1998	?	?	?	?	?	-	-
Saini 1998a	?	?	?	?	?	+	-
Salako 1998	?	?	?	?	?	-	?
Salmela 1986	?	?	+	+	?	+	?
Salveti 1987	+	?	?	?	?	-	?
Sambol 1990	?	?	?	?	?	-	?
Samuel 1990	+	?	?	?	?	+	?
Saruta 2007	?	?	+	+	?	+	?
Saul 1995	?	?	?	?	+	+	?
Scaglione 1992	?	?	?	?	+	+	?
Scaglione 1995	?	?	?	?	?	+	?
Schaller 1985	?	?	?	?	?	+	+
Schmieder 2009	+	?	?	?	+	+	-
Schnaper 1987	?	?	?	?	?	+	?
Schoenberger 1995	?	?	?	?	?	+	-
Scholze 1993	?	?	?	?	?	+	-
Shaw 1989	?	?	?	?	?	+	?
Sica 2012	?	?	?	?	?	-	-
Silagy 1992	?	?	?	?	?	-	?
Simunic 1995	?	?	?	?	?	+	?
Slovick 1995	?	?	+	+	?	-	-

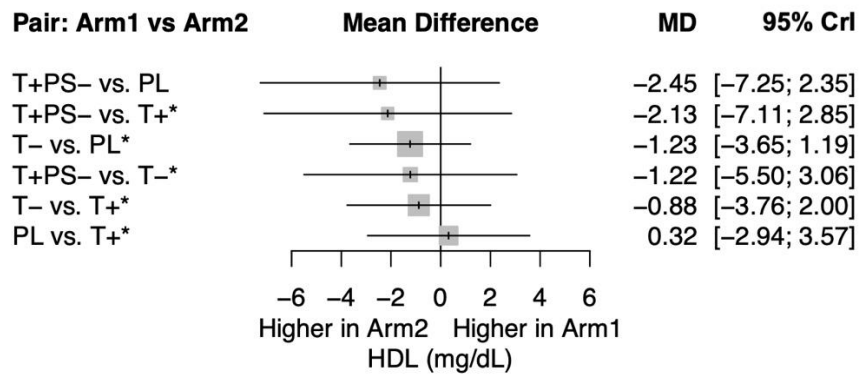
Sowers 2010	?	?	?	?	?	+	+
Spannbrucker 1988	?	?	?	?	?	?	?
Starr 1994	?	?	?	?	?	?	?
Stimpel 1998	+	?	?	?	+	+	?
Storm 1987	?	?	?	?	+	+	?
Swartz 1987	?	?	?	?	+	?	?
Taylor 1988	?	?	?	?	?	+	?
Trenkwalder 1996	?	?	?	?	+	+	+
Trost 1987	?	?	?	?	+	+	+
Vaicatis 1980	?	?	+	+	+	+	?
Vaisse 1991	?	?	?	?	?	+	?
Valimaki 1983	?	?	?	?	?	+	?
van de Ven 1997	?	?	?	?	+	?	?
Vardan 1987	?	?	+	+	+	+	+
Verho 1984	?	?	?	?	?	+	?
Vidt 1984	?	?	?	?	?	?	?
Villamil 2007	?	?	?	?	+	+	?
von Manteuffel 1995	?	?	?	?	?	?	?
Wahl 1986	+	?	?	?	+	?	?
Webb 1984	?	?	+	+	?	?	?
Webb 1984a	?	?	+	+	?	?	?
Weidler 1990	?	?	?	?	?	+	?
Weidler 1995	?	?	?	?	?	+	?
Weinberger 1982	?	?	?	?	+	+	?
Weinberger 1983	?	?	?	?	?	?	?
Weir 1992	?	?	?	?	+	+	?
Weir 1993	?	?	+	+	+	+	?
Weiss 1994	?	?	?	?	+	+	?
White 1997	?	?	?	?	+	+	?
Wicker 1986	+	?	+	+	?	+	?
Wikstrand 1986	?	?	+	+	+	+	?
Wilhelmsson 1979	?	?	?	?	+	+	?
Witzgall 1989	?	?	+	+	?	+	+
Wray 1983	?	?	+	+	?	+	+
Zappe 2008	?	?	?	?	+	+	?
Zezulka 1987	?	?	?	?	+	+	?
Zhang 2017	+	+	+	+	+	+	?

Figure S16. NMA by classes of drugs for total cholesterol.



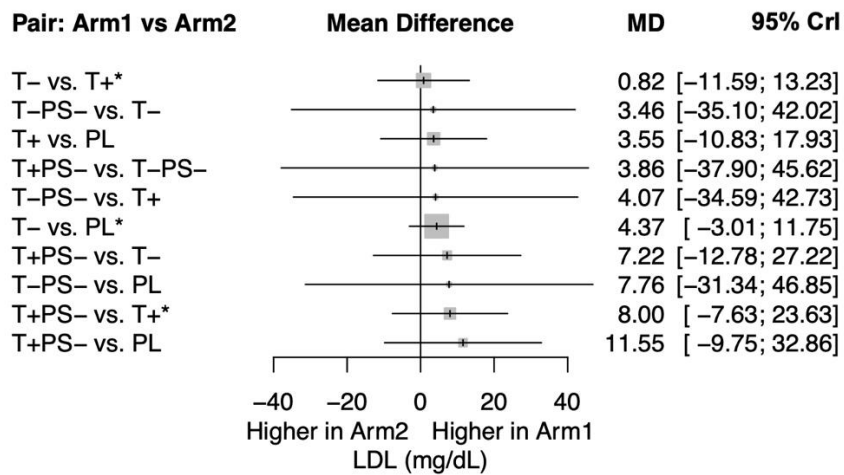
The figure shows the average difference of reductions after treatment (and its 95% credibility) for each outcome, where * indicates that the pair has direct evidence. Differences are considered as statistically significant when the 0 is not included in the 95% credibility interval.

Figure S17. NMA by classes of drugs for HDL-C.



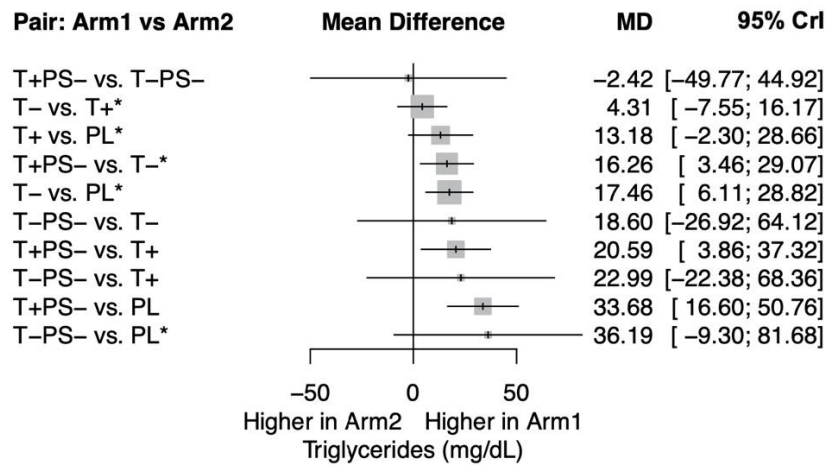
The figure shows the average difference of reductions after treatment (and its 95% credibility) for each outcome, where * indicates that the pair has direct evidence. Differences are considered as statistically significant when the 0 is not included in the 95% credibility interval.

Figure S18. NMA by classes of drugs for LDL-C.



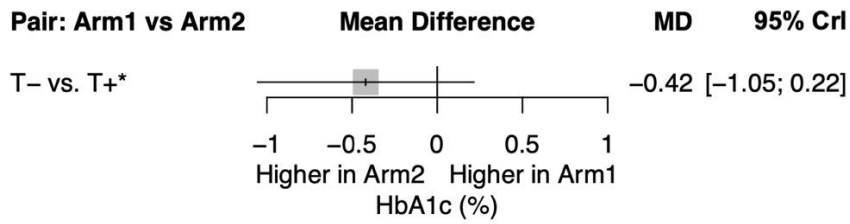
The figure shows the average difference of reductions after treatment (and its 95% credibility) for each outcome, where * indicates that the pair has direct evidence. Differences are considered as statistically significant when the 0 is not included in the 95% credibility interval.

Figure S19. NMA by classes of drugs for triglycerides.



The figure shows the average difference of reductions after treatment (and its 95% credibility) for each outcome, where * indicates that the pair has direct evidence. Differences are considered as statistically significant when the 0 is not included in the 95% credibility interval.

Figure S20. NMA by classes of drugs for HbA1c.



The figure shows the average difference of reductions after treatment (and its 95% credibility) for each outcome, where * indicates that the pair has direct evidence. Differences are considered as statistically significant when the 0 is not included in the 95% credibility interval.

Figure S21A. Funnel plot for systolic blood pressure.

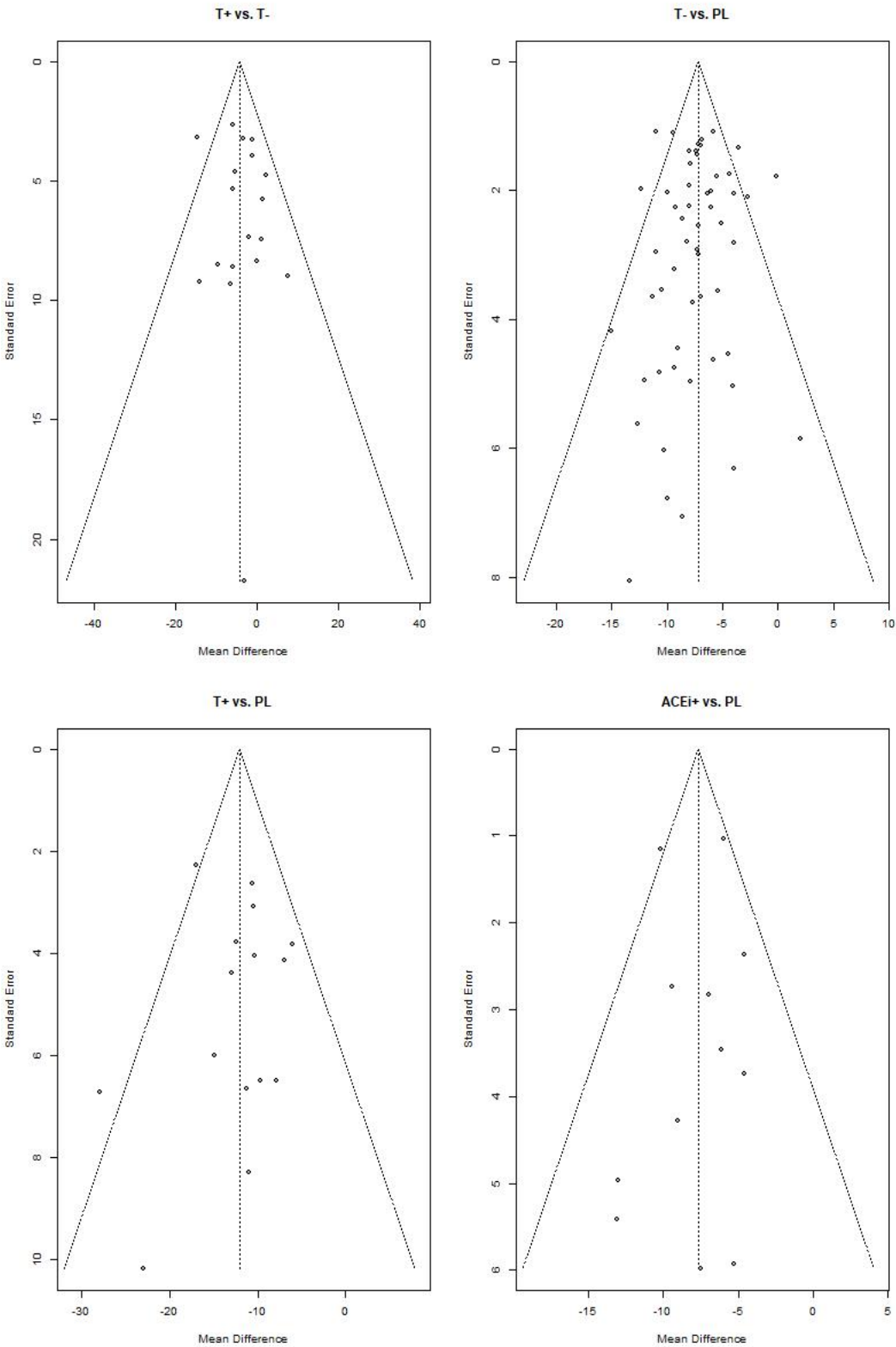


Figure S21B. Funnel plot for systolic blood pressure.

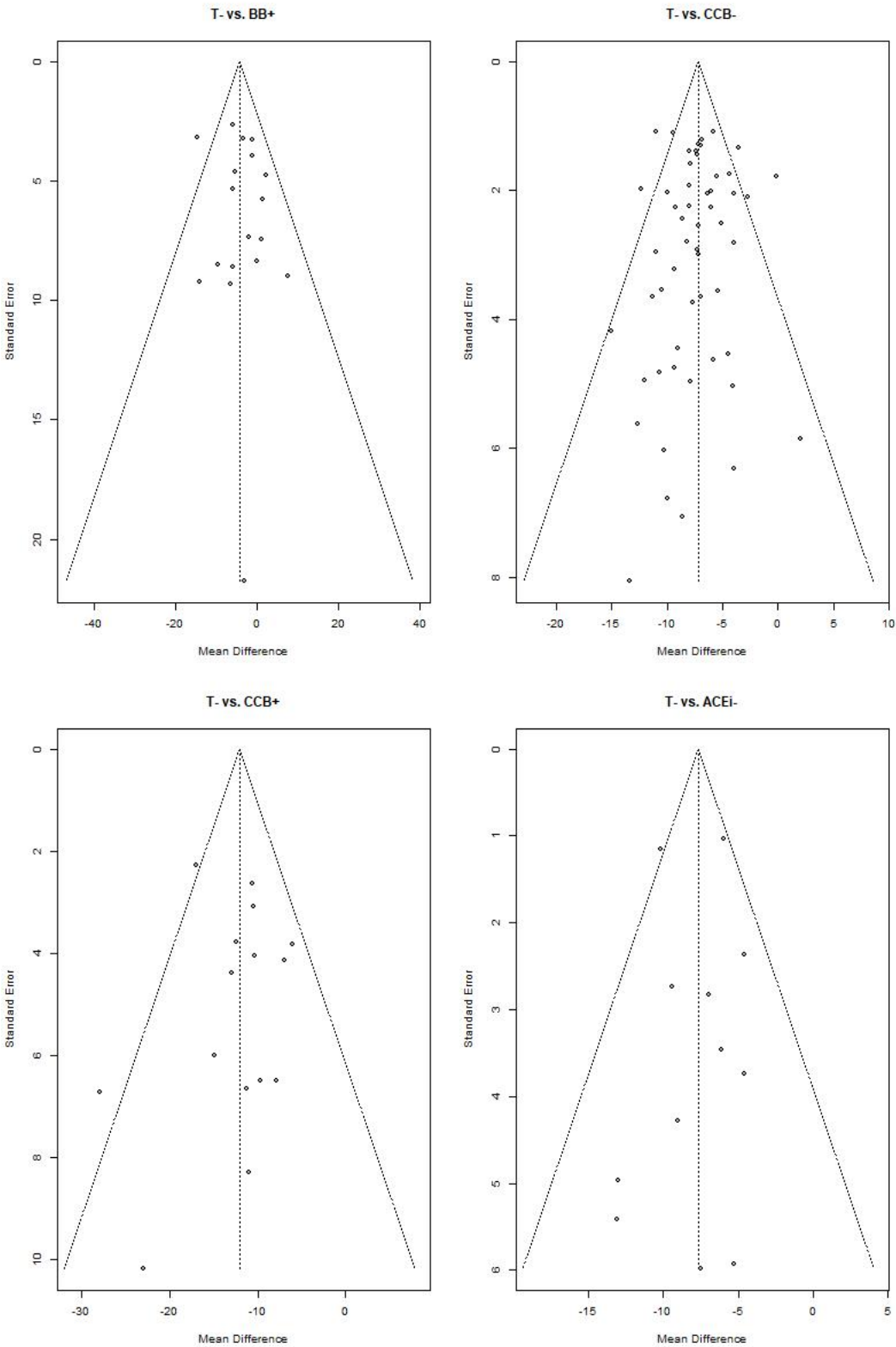


Figure S21C. Funnel plot for systolic blood pressure.

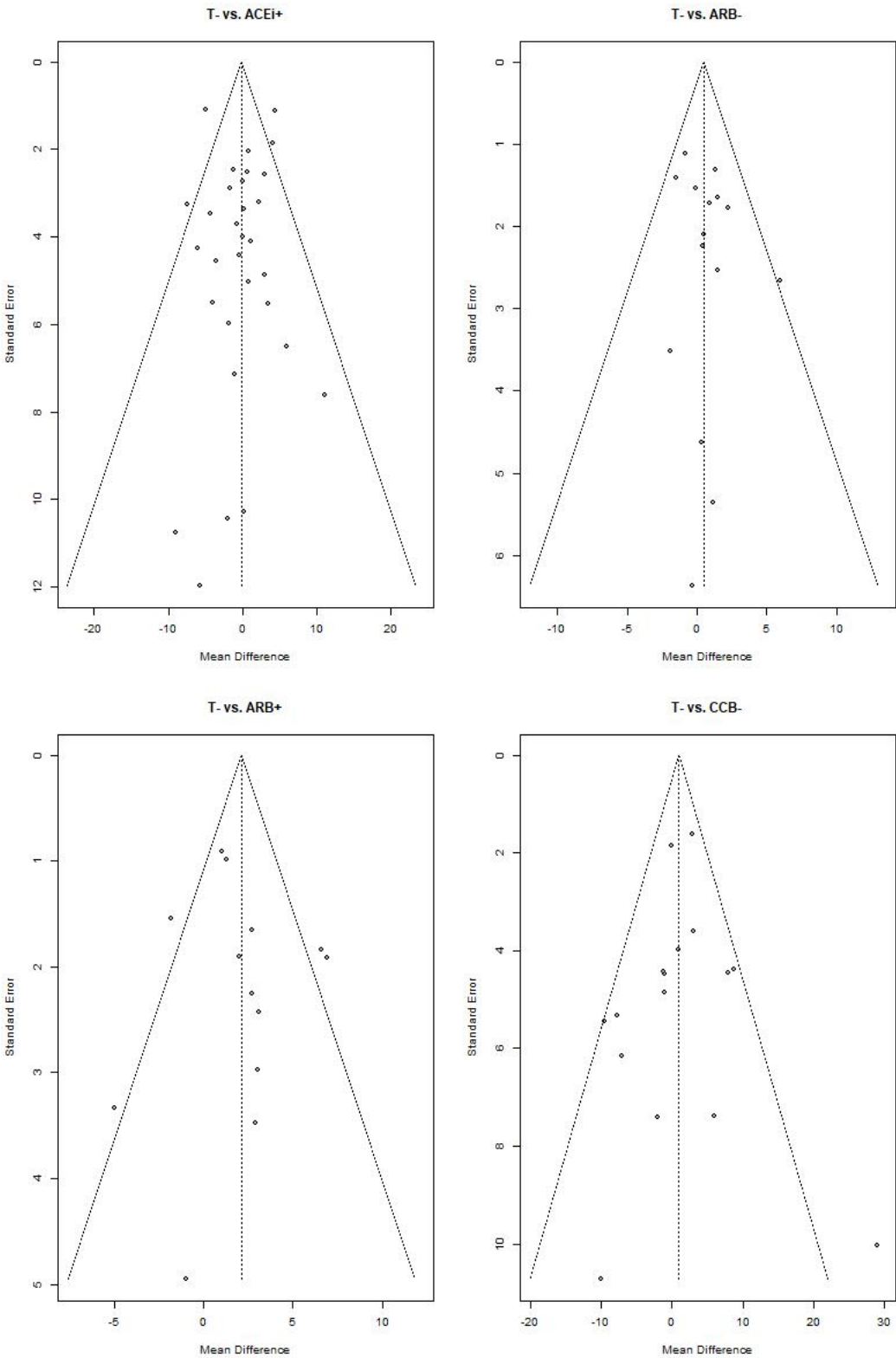


Figure S21D. Funnel plot for systolic blood pressure.

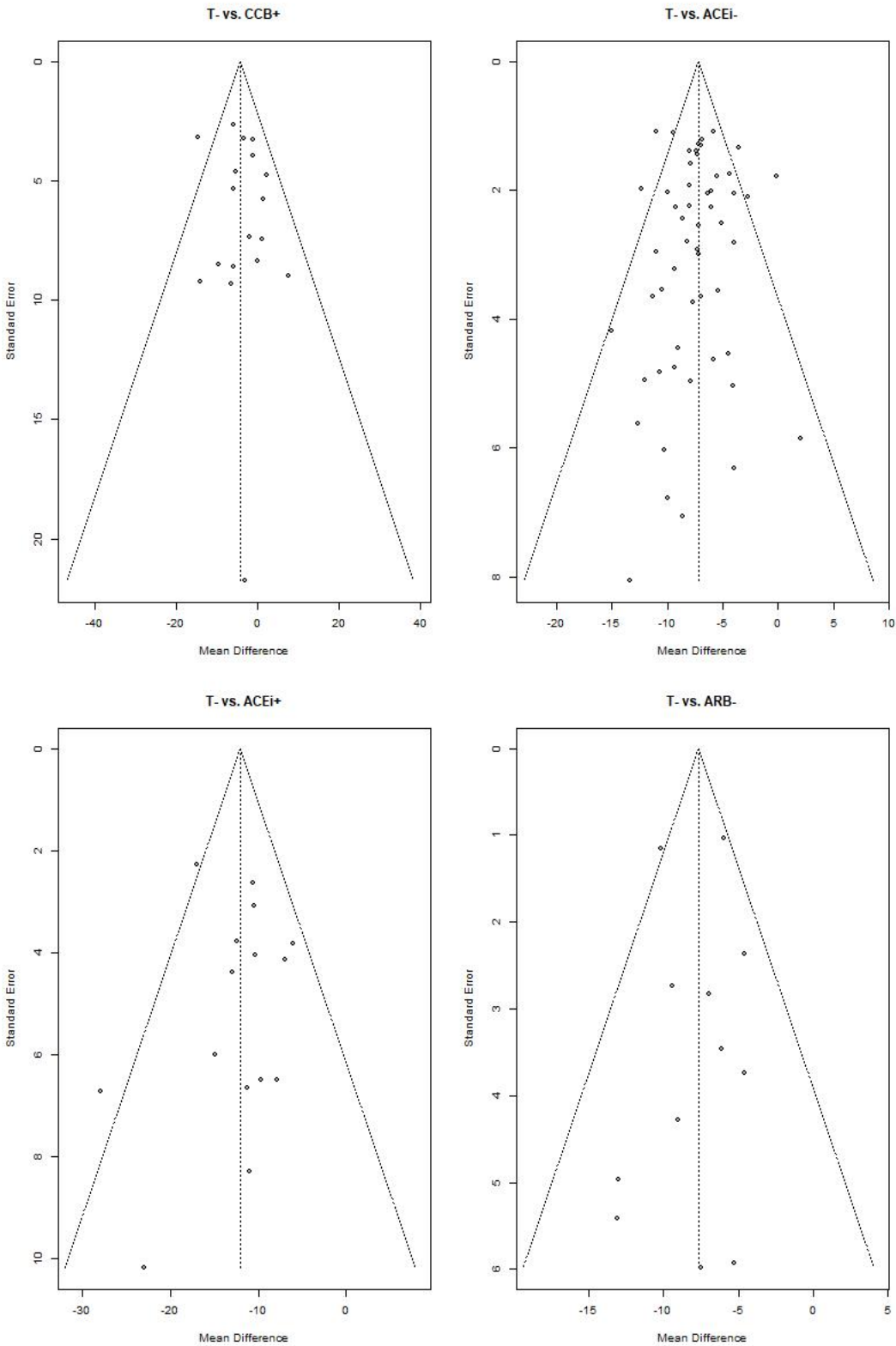


Figure S21E. Funnel plot for systolic blood pressure.

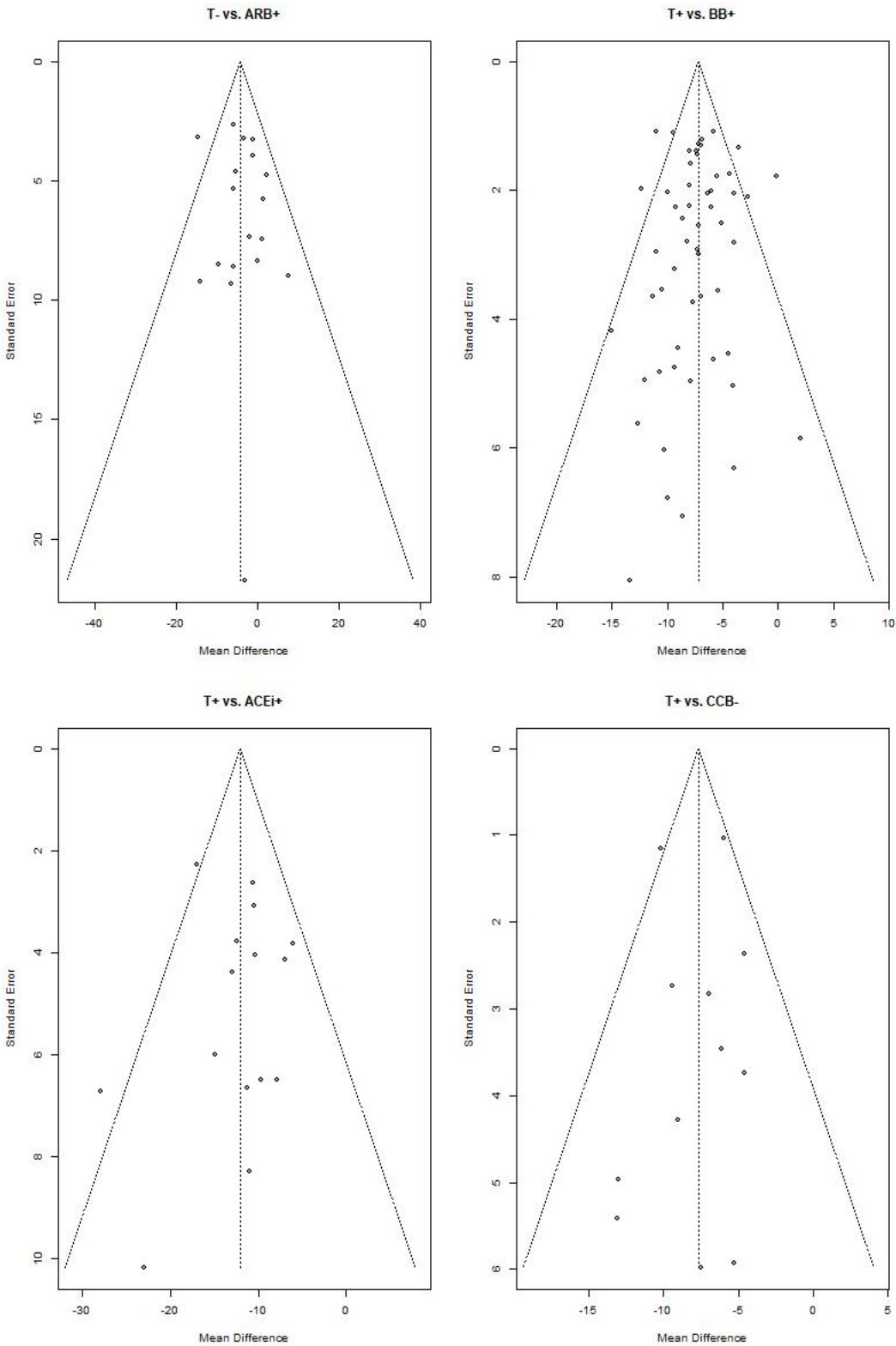


Figure S21F. Funnel plot for systolic blood pressure.

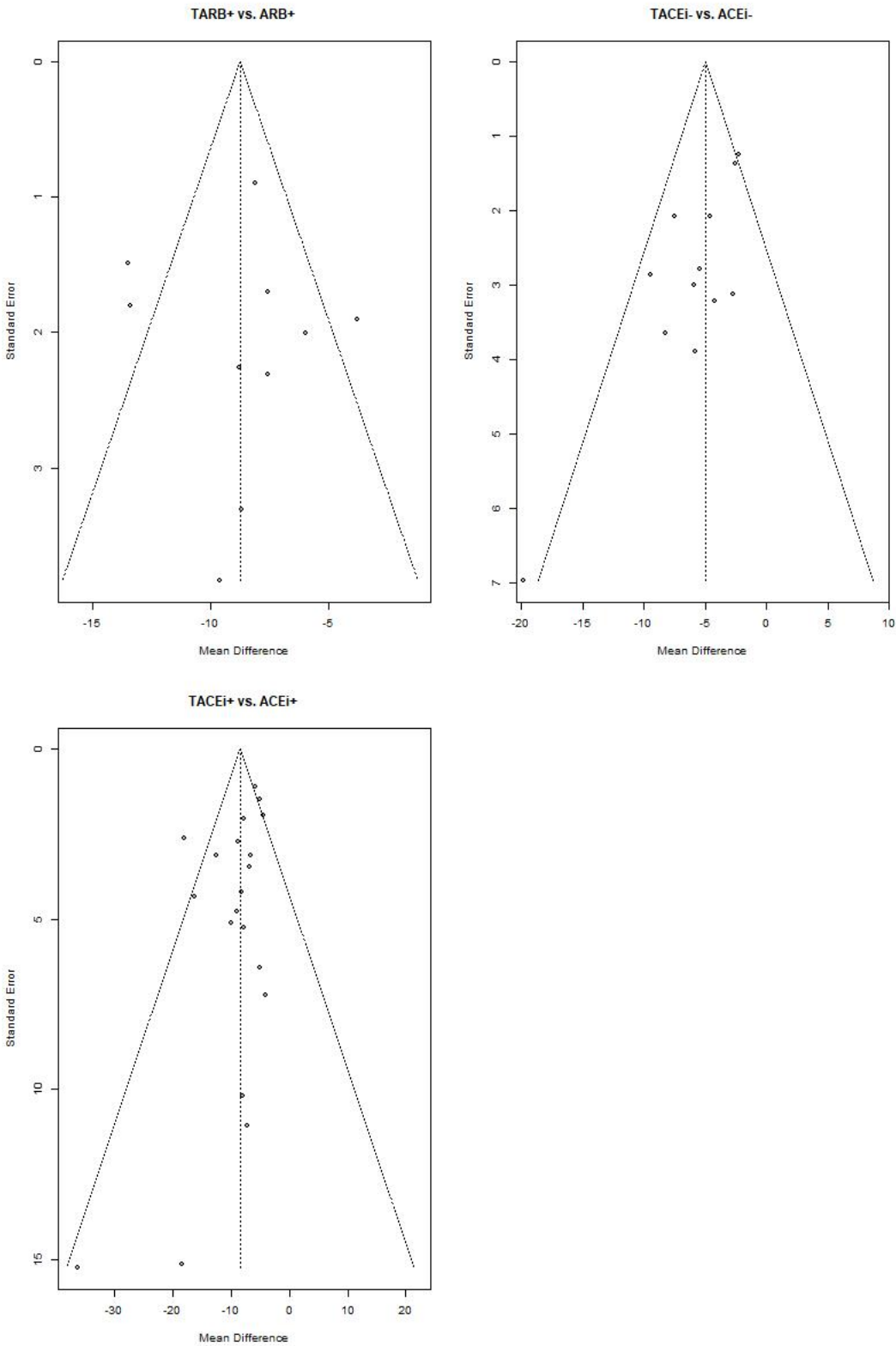


Figure S22. Funnel plot for potassium.

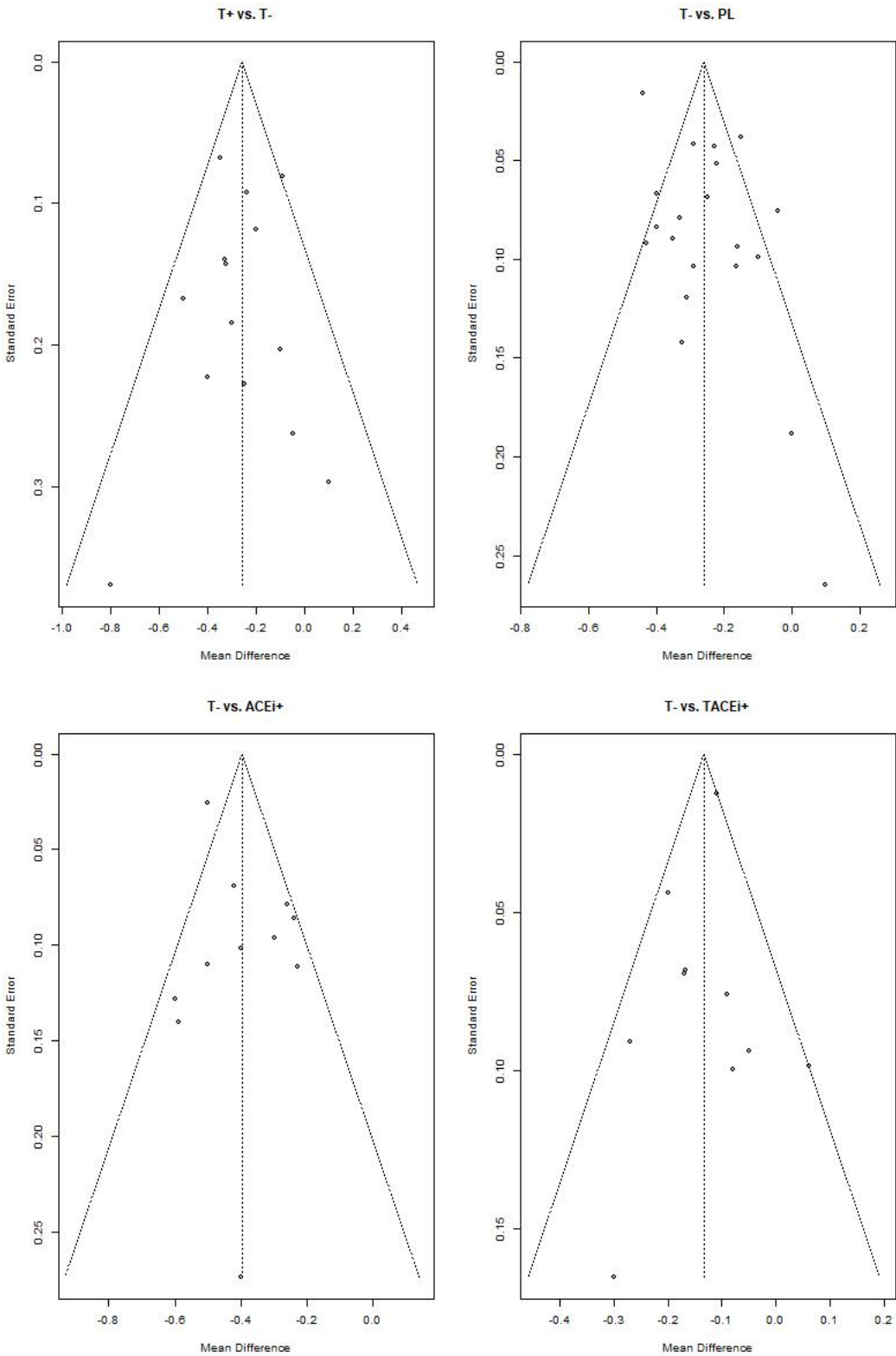


Figure S23. Funnel plot for uric acid.

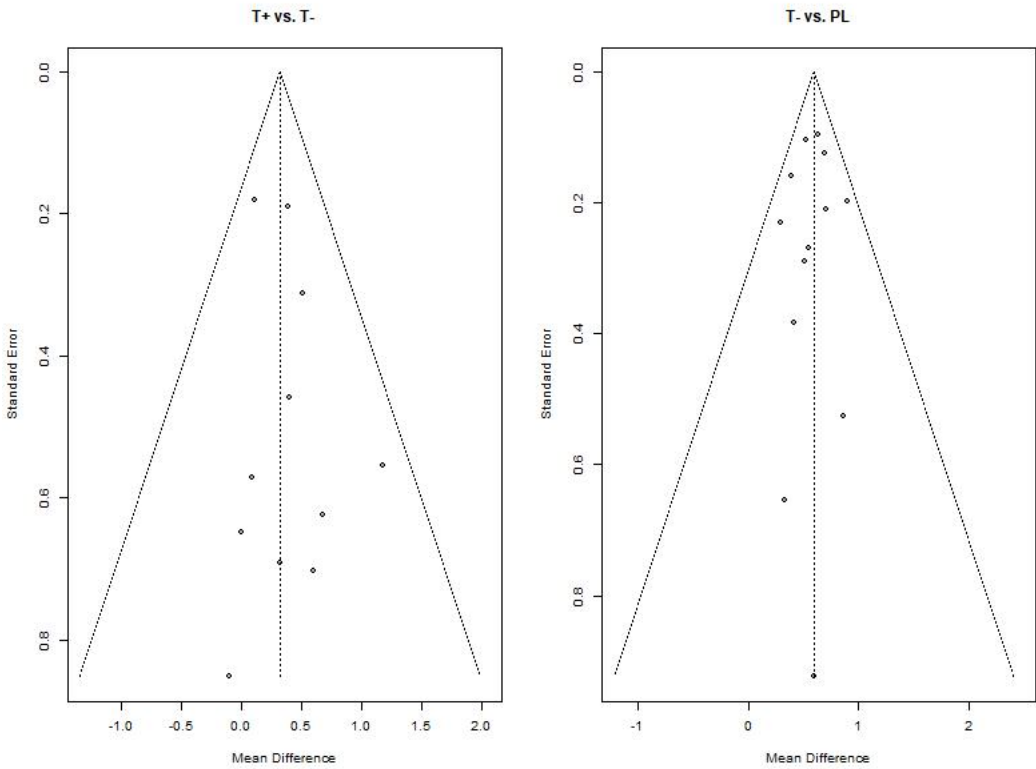
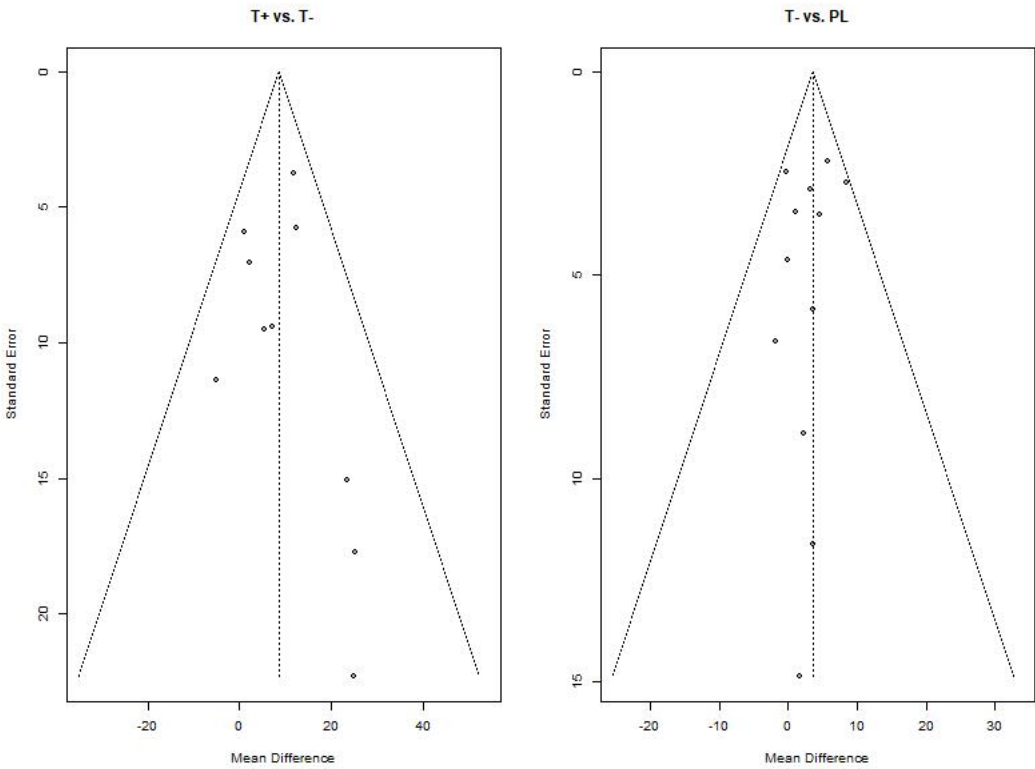


Figure S24. Funnel plot for fasting plasma glucose.



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