

Η ΑΝΤΙΥΠΕΡΤΑΣΙΚΗ ΘΕΡΑΠΕΙΑ ΜΕΙΩΝΕΙ ΤΟΝ ΚΙΝΔΥΝΟ ΚΑΡΔΙΑΓΓΕΙΑΚΗΣ
ΝΟΣΗΡΟΤΗΤΑΣ ΚΑΙ ΘΝΗΤΟΤΗΤΑΣ ΣΤΟΥΣ ΑΙΜΟΚΑΘΑΙΡΟΜΕΝΟΥΣ ΑΣΘΕΝΕΙΣ:
ΣΥΣΤΗΜΑΤΙΚΗ ΑΝΑΣΚΟΠΗΣΗ ΚΑΙ ΜΕΤΑ-ΑΝΑΛΥΣΗ ΤΥΧΑΙΟΠΟΙΗΜΕΝΩΝ ΚΛΙΝΙΚΩΝ
ΔΟΚΙΜΩΝ

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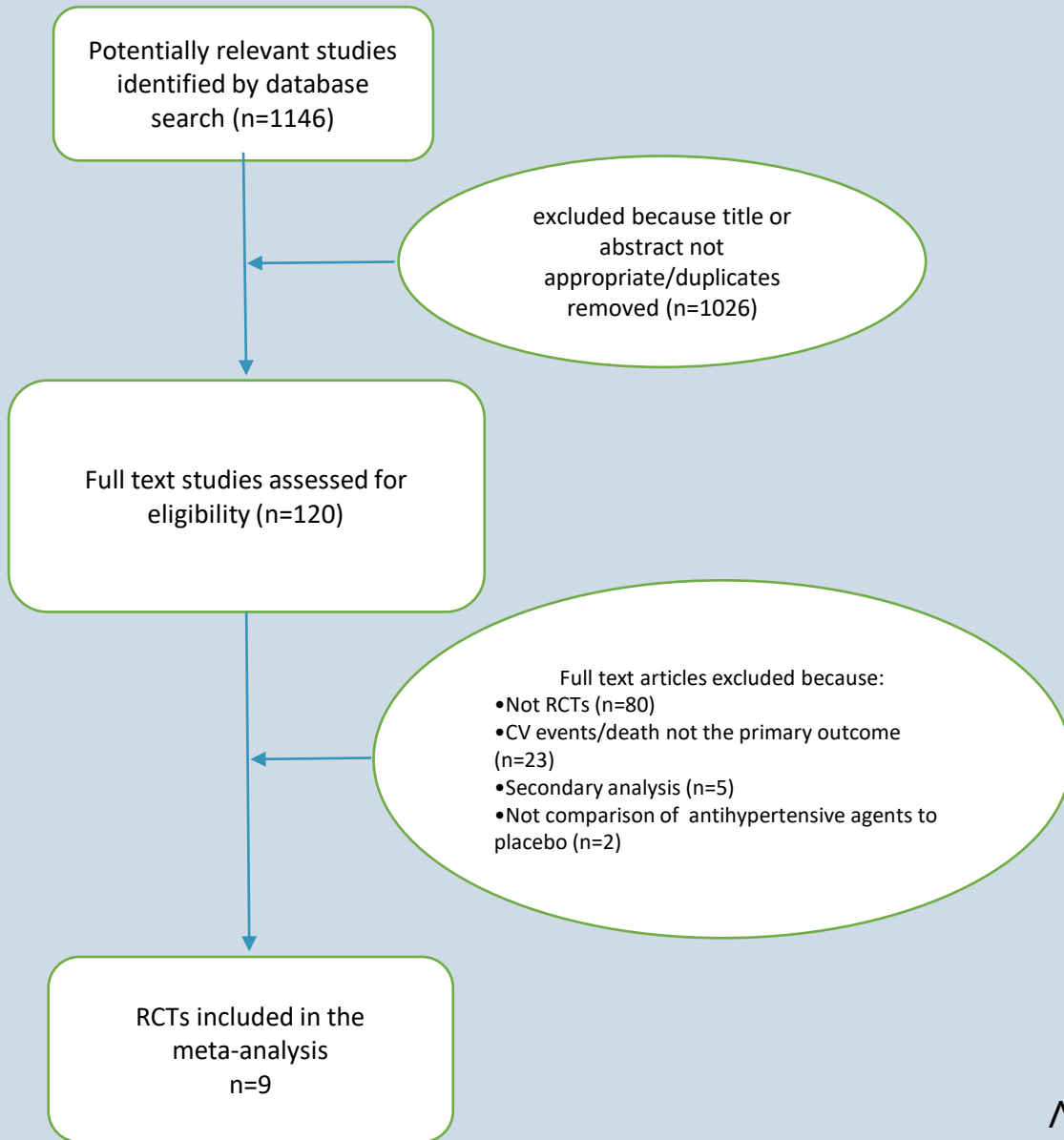
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ΣΧΕΔΙΑΣΜΟΣ ΜΕΤΑ-ΑΝΑΛΥΣΗΣ

Cardiovascular Protection With Antihypertensive Drugs in Dialysis Patients

Systematic Review and Meta-Analysis

Rajiv Agarwal, Arjun D. Sinha



Γλώσσα δημοσίευσης:
Αγγλικά

Χρονική περίοδος
δημοσίευσης: **2003-2021**

Databases: **PubMed,**
Cochrane Library

Λέξεις κλειδιά: **“hypertension”,**
“antihypertensive”, “dialysis”,
“cardiovascular”

Διάγραμμα ροής

Author	Year	Medication	Design	Exposure (months)	Normotensives included	Age	N	BP baseline	BP final	Deaths	CV	Country of origin
Matsumoto et al. (39)	2014	Spironolactone/ Other BP med.	Prospective, randomized	36	Yes	67/67	157/ 152	153/77 148/76	153/77 148/77	10/30	9/23	Japan
Zannad et al. (40)	2006	Fosinopril/ Placebo	DBRCT	24	Yes	67/67	196/ 201	146/77 145/77	139/76 143/74	52/49	67/60	France
Takahashi et al. (41)	2006	Candesartan/Nothing	PROBE	36	Yes	60/62	43/ 37	153/82 152/85	149/80 153/83	0/7	7/17	Japan
Suzuki et al. (42)	2008	ARBs/ Nothing	Randomized Open	36	No	59/60	180/ 180	154/81 156/82	140/80 140/78	25/38	34/59	Japan
Cice et al. (43)	2003	Carvedilol/ Placebo	DBRCT for 12 mo, then open label	24	Yes	55/55	58/ 56	134/75 135/75	120/70 135/76	30/41	17/39	Italy
Tepel et al. (44)	2008	Amlodipine/ Placebo	DBRCT	19	No	60/62	123/ 128	140/80 141/80	130/80 140/80	15/22	19/32	Germany
Lin C. et al. (45)	2016	Spironolactone/ Placebo	RCT	24	Yes	70/70	125/ 128	148/77 142/77	147/77 142/78	12/25	9/23	China
Iseki et al. (46)	2013	Olmesartan/ Other BP med.	PROBE	42	No	59/60	235/ 234	159/80 160/81	153/78 152/78	38/39	68/67	Japan
Ruggenenti et al. (47)	2021	Ramipril/ Non-RAAS inhibitors	PROBE	42	No	64/62	140/ 129	145/75 143/76	145/70 143/70	*	23/24	Italy

Πίνακας 1. Χαρακτηριστικά των 9 τυχαιοποιημένων κλινικών δοκιμών που συμπεριλήφθηκαν στην παρούσα μετά-ανάλυση. (DBRCT: double-blind randomized controlled trial, PROBE: prospective randomized open-label blinded endpoint, RCT: randomized controlled trial)

***Στην μελέτη των Ruggenenti et al. δεν εξετάζεται η θνητότητα από κάθε αιτία**

ΘΝΗΤΟΤΗΤΑ ΑΠΟ ΚΑΘΕ ΑΙΤΙΑ

Study	ES	[95% Conf. Interval]		% Weight
Matsumoto et al. 201	0.350	0.188	0.652	8.06
Zannad et al. 2006	1.090	0.781	1.522	28.07
Takahashi et al. 200	0.060	0.002	1.878	0.26
Suzuki et al. 2008	0.640	0.388	1.055	12.50
Cice et al. 2003	0.510	0.340	0.765	19.00
Tepel et al. 2008	0.650	0.342	1.236	7.56
Lin C. et al. 2016	0.520	0.289	0.936	9.03
Iseki et al. 2013	0.970	0.620	1.519	15.53
I-V pooled ES	0.706	0.592	0.843	100.00

Heterogeneity chi-squared = 19.01 (d.f. = 7) p = 0.008
 I-squared (variation in ES attributable to heterogeneity) = 63.2%

Test of ES=1: z= 3.86 p = 0.000

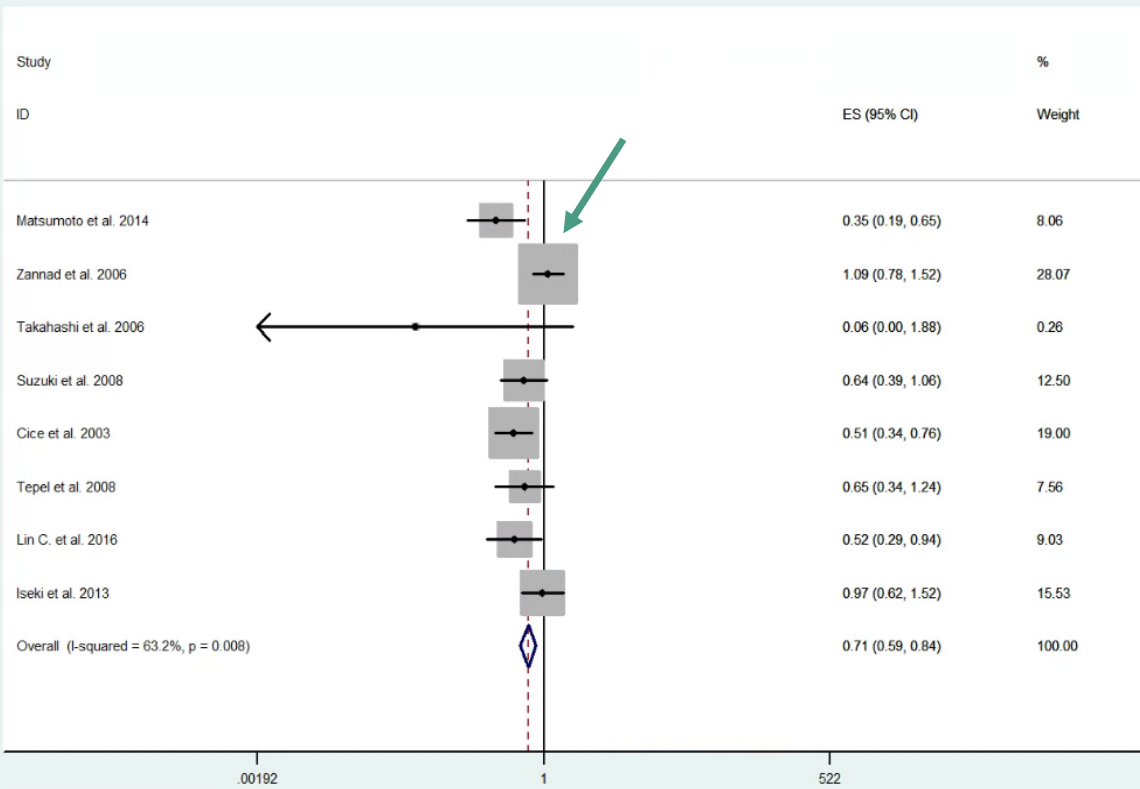
Απαραίτητη η ανάλυση
 τυχαίων επιδράσεων

Study	ES	[95% Conf. Interval]		% Weight
Matsumoto et al. 2014	0.350	0.188	0.652	11.88
Zannad et al. 2006	1.090	0.781	1.522	17.68
Takahashi et al. 200	0.060	0.002	1.878	0.81
Suzuki et al. 2008	0.640	0.388	1.055	14.20
Cice et al. 2003	0.510	0.340	0.765	16.16
Tepel et al. 2008	0.650	0.342	1.236	11.52
Lin C. et al. 2016	0.520	0.289	0.936	12.50
Iseki et al. 2013	0.970	0.620	1.519	15.26
D+L pooled ES	0.644	0.469	0.883	100.00

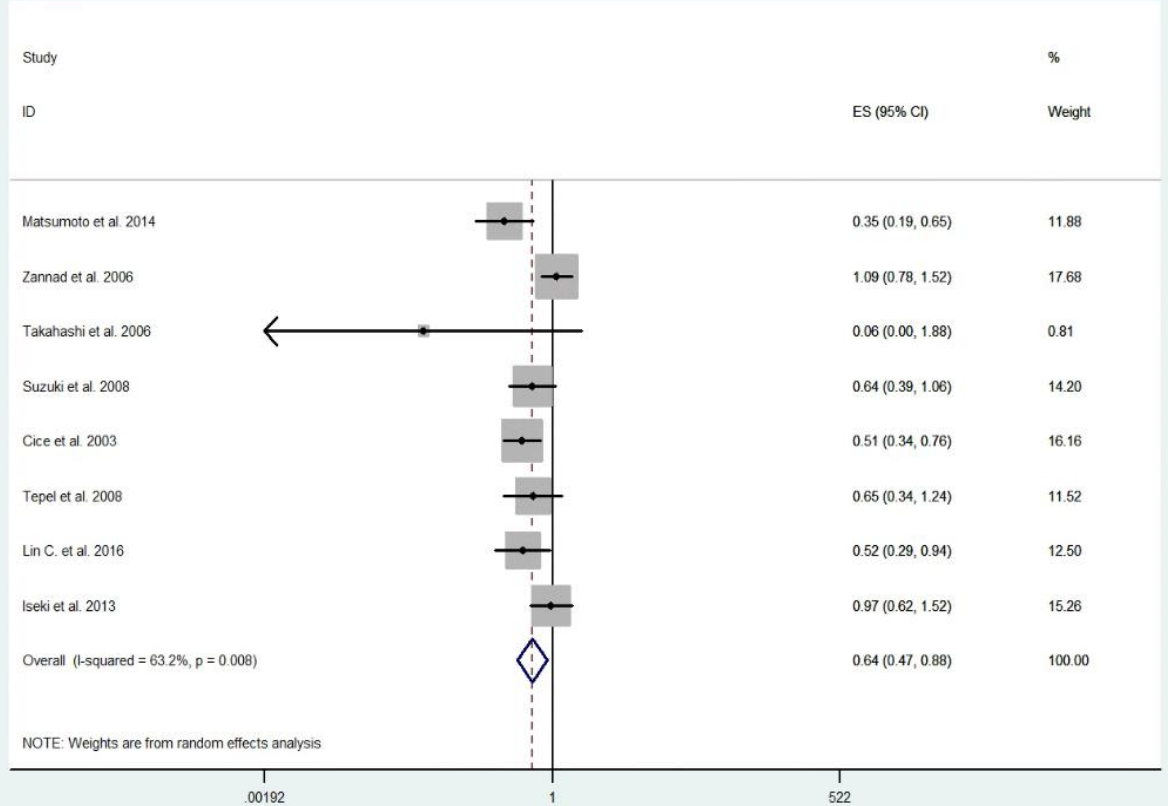
Heterogeneity chi-squared = 19.01 (d.f. = 7) p = 0.008
 I-squared (variation in ES attributable to heterogeneity) = 63.2%
 Estimate of between-study variance Tau-squared = 0.1183

Test of ES=1: z= 2.73 p = 0.006

FOREST PLOT ME TO MONTELO STATHERON EPIΔΡΑΣΕΩΝ

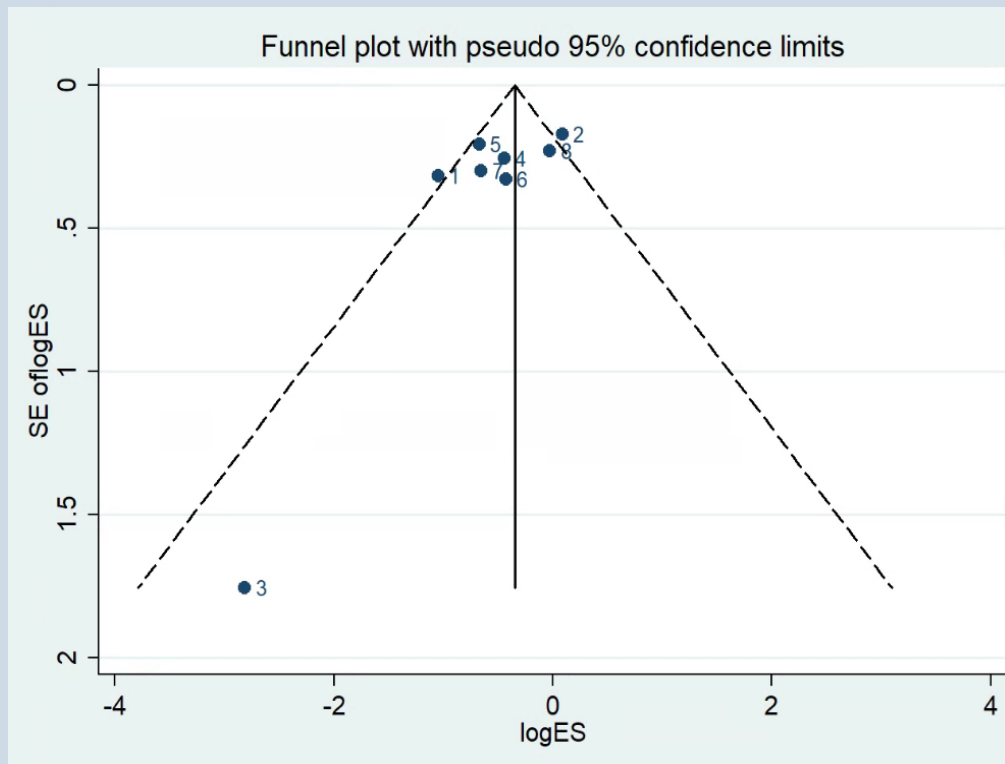


FOREST PLOT ME TO MONTELO TYΧΑΙΩΝ EPIΔΡΑΣΕΩΝ



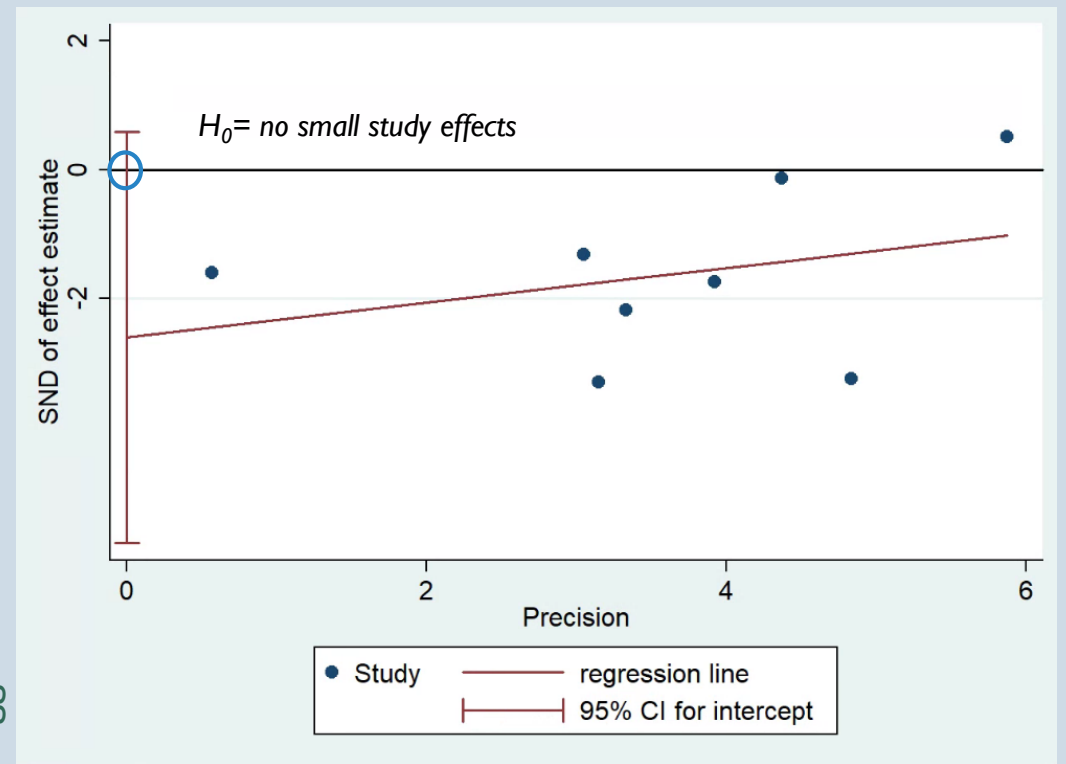
ΕΛΕΓΧΟΣ ΓΙΑ ΣΦΑΛΜΑ ΔΗΜΟΣΙΕΥΣΗΣ

Funnel Plot



Δεν αναγνωρίζεται σφάλμα δημοσίευσης

Egger test



Οι μικρές σε βάρος μελέτες δεν επηρεάζουν το τελικό αποτέλεσμα

ΚΑΡΔΙΑΓΓΕΙΑΚΗ ΝΟΣΗΡΟΤΗΤΑ

Study	ES	[95% Conf. Interval]		% Weight
Zannad et al. 2006	0.93	0.681	1.271	25.26
Cice et al. 2003	0.76	0.472	1.224	10.83
Takahashi et al. 200	0.29	0.12	0.7	3.17
Suzuki et al. 2008	0.51	0.33	0.789	12.93
Tepel et al. 2008	0.53	0.306	0.918	8.17
Iseki et al. 2013	1.001	0.713	1.406	21.38
Ruggenenti et al. 20	0.93	0.524	1.652	7.47
Lin C. et al. 2016	0.42	0.242	0.727	8.17
Matsumoto et al. 201	0.42	0.159	1.106	2.63
I-V pooled ES	0.722	0.618	0.845	100

Heterogeneity chi-squared = 19.58 (d.f. = 8) p = 0.012
 I-squared (variation in ES attributable to heterogeneity) = 59.1%

Test of ES=1: z= 4.06 p < 0.001

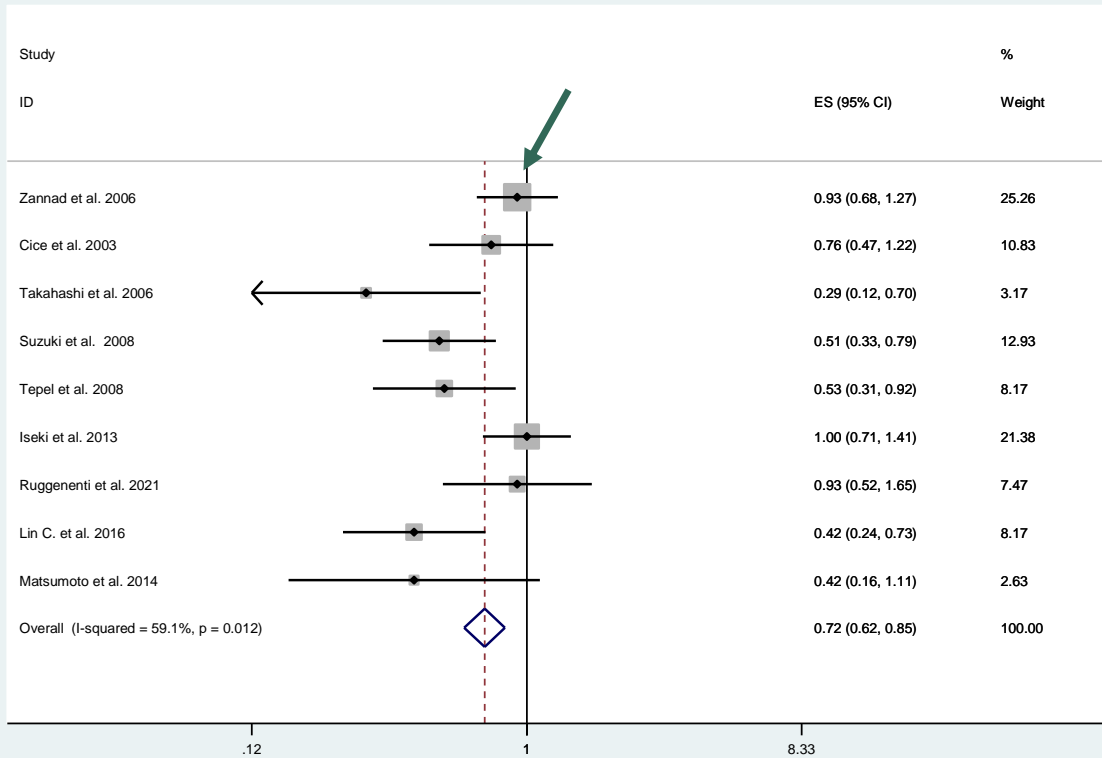
Απαραίτητη η ανάλυση
 τυχαίων επιδράσεων

Study	ES	[95% Conf. Interval]		% Weight
Zannad et al. 2006	0.93	0.681	1.271	15.86
Cice et al. 2003	0.76	0.472	1.224	12.22
Takahashi et al. 2006	0.29	0.12	0.7	6.2
Suzuki et al. 2008	0.51	0.33	0.789	13.08
Tepel et al. 2008	0.53	0.306	0.918	10.81
Iseki et al. 2013	1.001	0.713	1.406	15.24
Ruggenenti et al. 2021	0.93	0.524	1.652	10.35
Lin C. et al. 2016	0.42	0.242	0.727	10.81
Matsumoto et al. 2014	0.42	0.159	1.106	5.42
D+L pooled ES	0.653	0.502	0.849	100

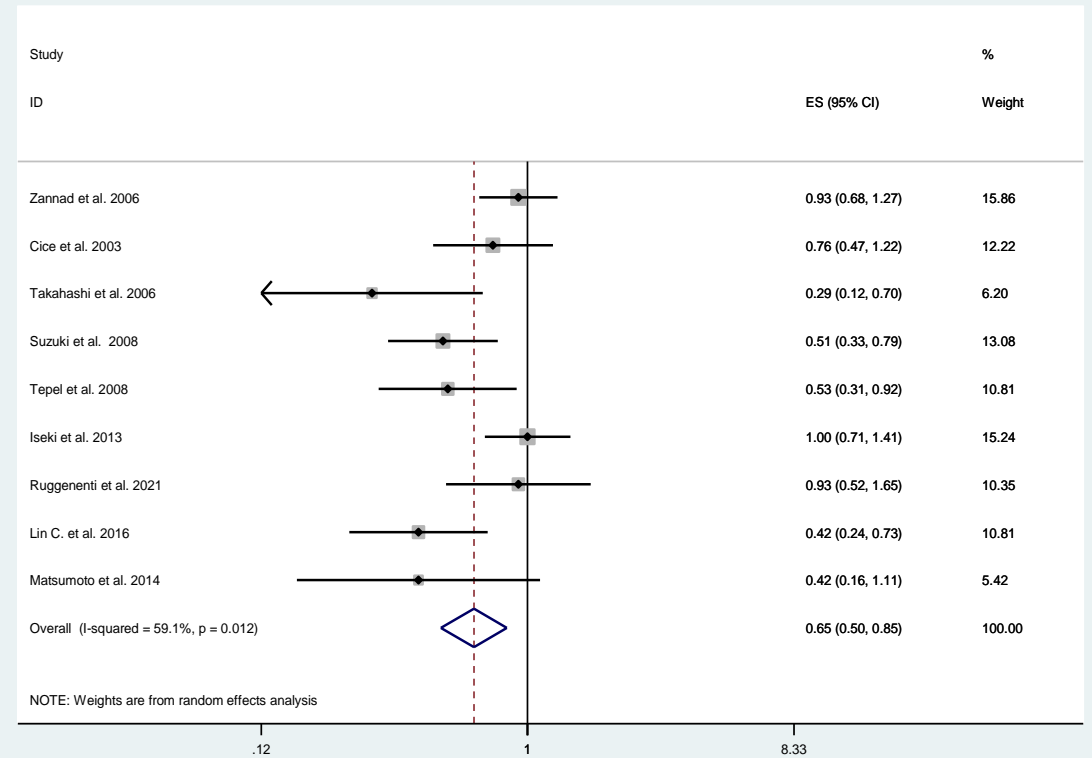
Heterogeneity chi-squared = 19.58 (d.f. = 8) p = 0.012
 I-squared (variation in ES attributable to heterogeneity) = 59.1%
 Estimate of between-study variance Tau-squared = 0.0882

Test of ES=1: z= 3.18 p = 0.001

FOREST PLOT ME TO MONTELO TΩN ΣΤΑΘΕΡΩΝ ΕΠΙΔΡΑΣΕΩΝ

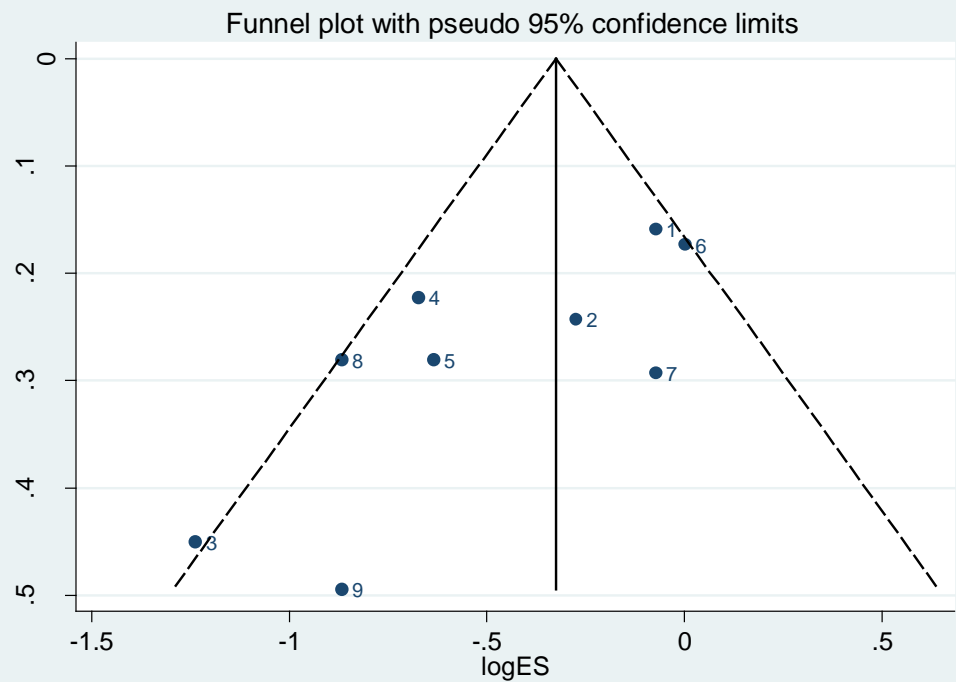


FOREST PLOT ME TO MONTELO TΩN ΤΥΧΑΙΩΝ ΕΠΙΔΡΑΣΕΩΝ

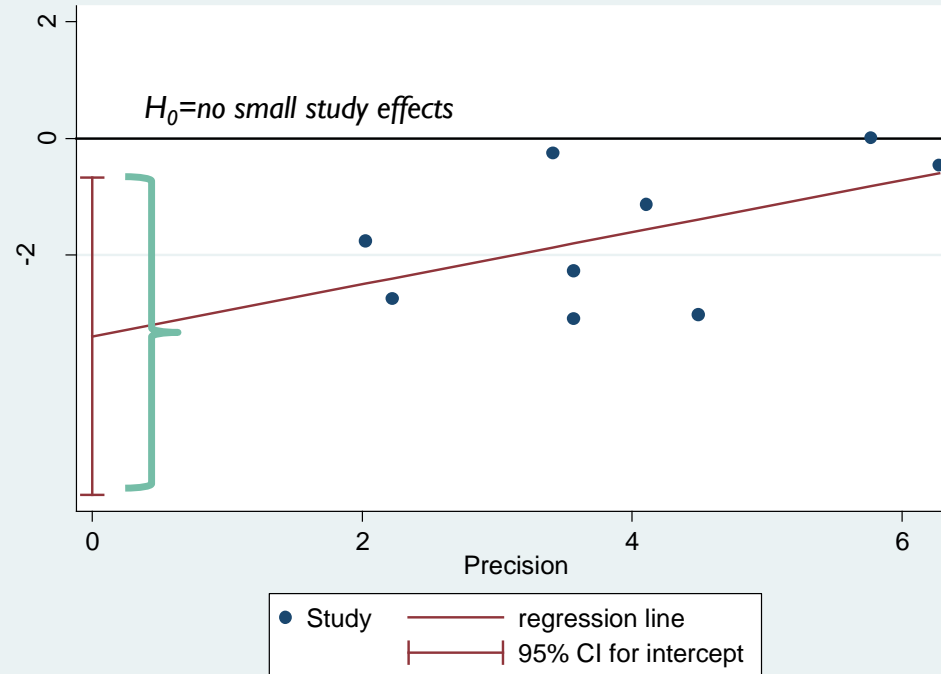


ΕΛΕΓΧΟΣ ΓΙΑ ΣΦΑΛΜΑ ΔΗΜΟΣΙΕΥΣΗΣ

Funnel Plot



Egger test



Δεν μπορεί να αποκλειστεί το σφάλμα δημοσίευσης!

ΑΝΑΛΥΣΗ ΕΥΑΙΣΘΗΣΙΑΣ ΒΑΣΕΙ ΕΤΟΥΣ ΔΗΜΟΣΙΕΥΣΗΣ

ΚΑΡΔΙΑΓΓΕΙΑΚΗ ΝΟΣΗΡΟΤΗΤΑ

- Ήπια υπεροχή των μελετών ≤ 2008 (χωρίς στατιστική σημασία)

ΘΝΗΤΟΤΗΤΑ ΑΠΟ ΚΑΘΕ ΑΙΤΙΑ

- Ήπια υπεροχή των μελετών > 2008 (χωρίς στατιστική σημασία)

**ΥΠΕΡΟΧΗ ΤΗΣ ΑΝΤΙΥΠΕΡΤΑΣΙΚΗΣ ΘΕΡΑΠΕΙΑΣ ΕΝΑΝΤΙ
ΤΟΥ PLACEBO ΣΤΗΝ ΕΛΑΤΤΩΣΗ ΤΟΥ HR**

**Καρδιαγγειακή
Νοσηρότητα**

- 28.8% με το μοντέλο σταθερών επιδράσεων
- 34.7% με το μοντέλο τυχαίων επιδράσεων

**Θνητότητα από κάθε
αιτία**

- 29.4% με το μοντέλο σταθερών επιδράσεων
- 35.6% με το μοντέλο τυχαίων επιδράσεων

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ΕΥΧΑΡΙΣΤΩ