

MIGRAINE, PRE-ECLAMPSIE & HART- EN VAATZIEKTEN:

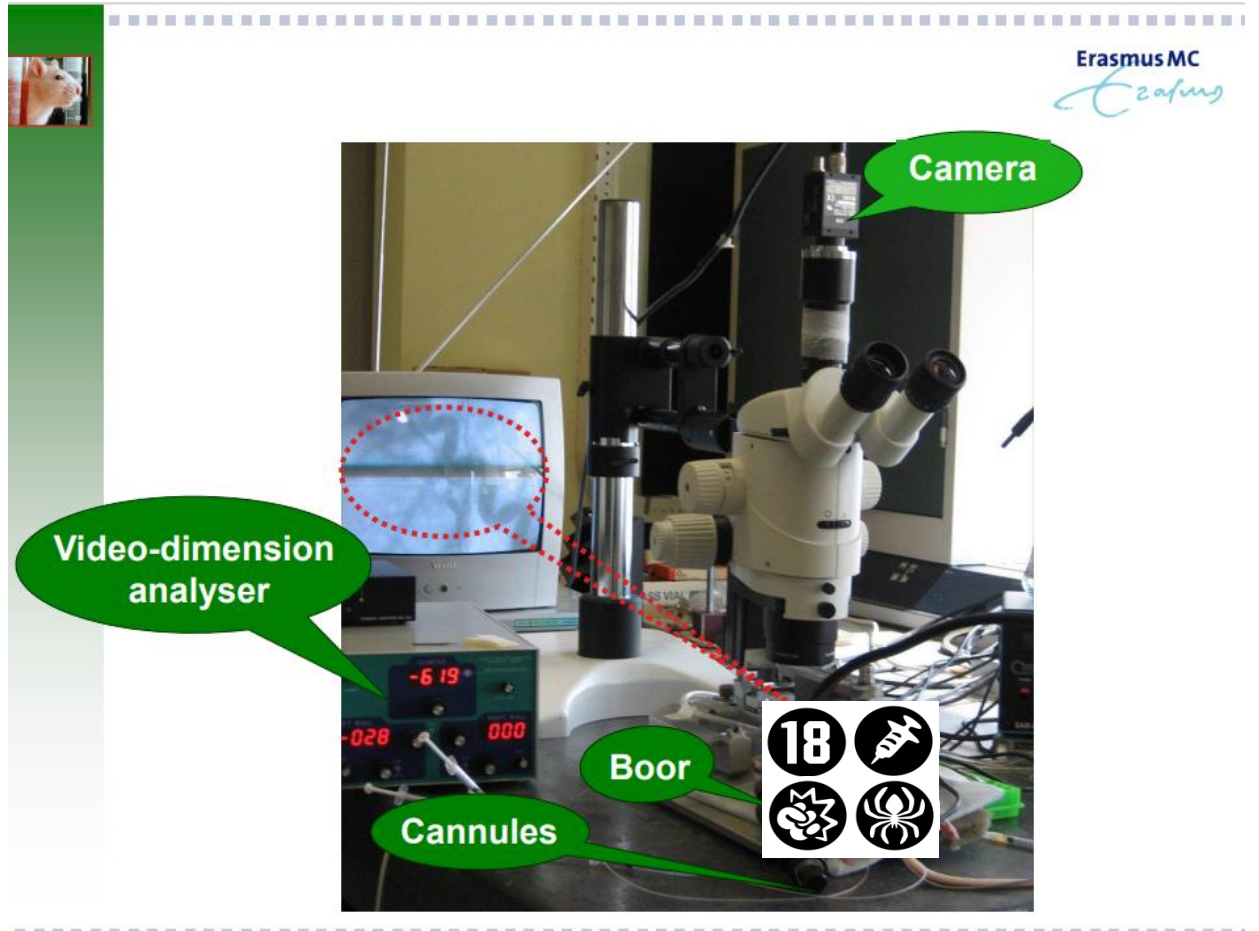
EEN TRIAS VAN RAMPSPOED VOOR VROUWEN ?

Jeanine Roeters van Lennep
internist vasculaire geneeskunde
Erasmus MC, Rotterdam





Lezing Dr. (Antoinette) A. Maassen van den Brink - Gendersensitief basaal onderzoek: zoeken naar een oplossing voor migraine



CASUS- VERVOLG

Verwijzing van neuroloog ivm hypertensie

Mevrouw W.

Anamnese:

- Na zwangerschap bloeddrukpillen afgebouwd, daarna niet meer gecontroleerd tot recent bij neuroloog
- Bijna 1 jaar geduurd voordat zij zich oude voelde
- Regelmatig hoofdpijn, “alsof strakke badmuts op hoofd”
- Moeder ook hoge bloeddruk bij zwangerschap van patiente
- Gebruikt weinig zout, eet geen drop



CASUS- VERVOLG

Voorgeschiedenis:

- 1999 Appendicitis acuta
- 2013 Burn-out
- 2014 Stoppen met roken
- 2015 Vermoeidheid
- 2015 wratten
- 2015 Urineweginfectie
- **2016 geboorte zoon Douwe na 33+2 wk AD, SC ivm pre-eclampsie**
- 2017 buikpijn, wrsch IBS
- 2018 geboorte zoon Rienk na 39 wk AD, spontane partus
- 2019 neuroloog: migraine
- 2019 Mirena spiraal



CASUS- VERVOLG

Lichamelijk onderzoek:

- Geen afwijkingen hart/longen/abdomen/extremititeiten
- RR 150/90 HF 88/min r/a.
- Lengte 170 cm, Gewicht 60 kg BMI 20,8

- Aanvullend onderzoek
- 24 hrs bloeddrukmeting: 96% metingen geslaagd
 - Totaal 148/89 mmHg
 - Dag 152/90 mmHg
 - Nacht 146/87mmHg



HYPERTENSIEVE ZWANGERSCHAPPEN

- Zwangerschapshypertensie (PIH) hypertensie > 20^{ste} wk AD
- Pre-eclampsie/HELLP hypertensie > 20^{ste} wk AD + orgaanschade

Incidentie

- PIH 10-15%/jaar
- PE/HELLP 2-5%

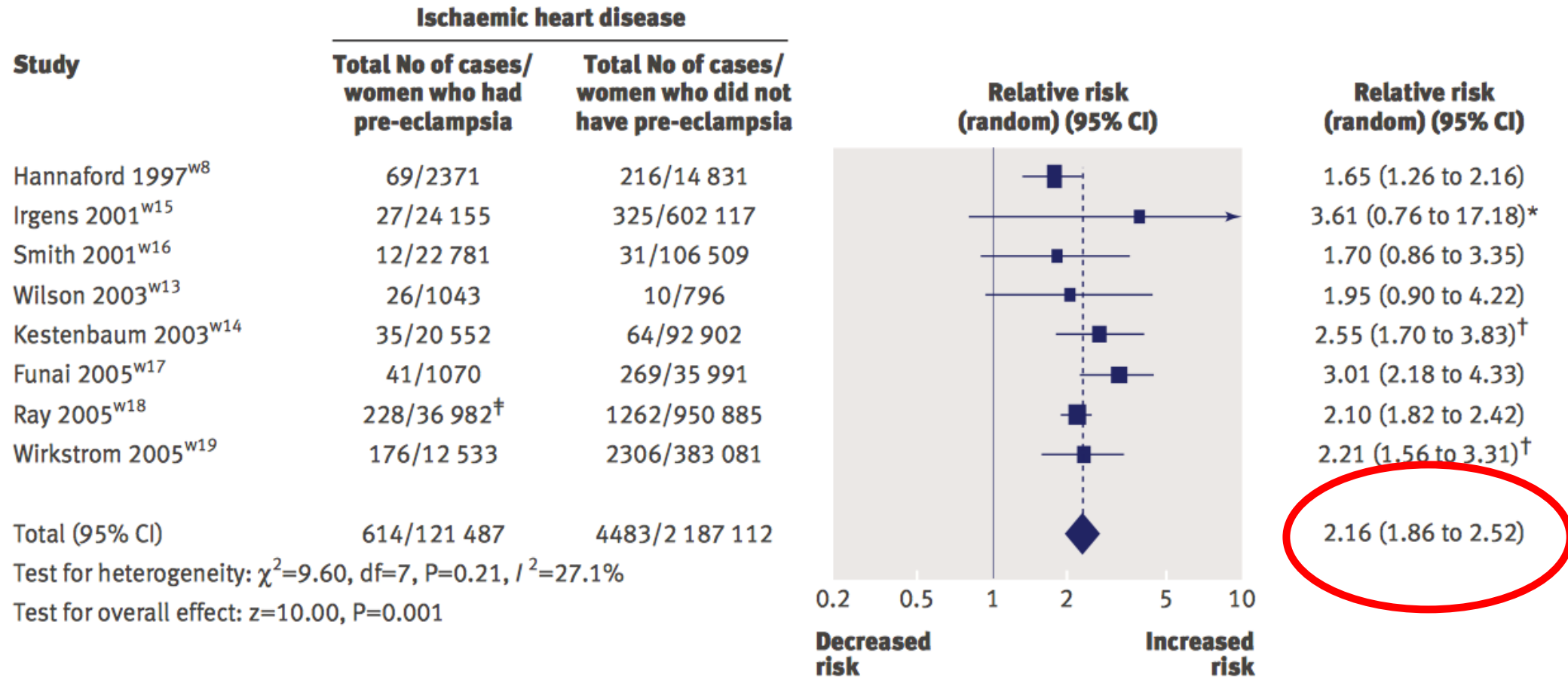
- Per jaar 25,000 vrouwen in Nederland
- Belangrijkste oorzaak maternale morbiditeit/mortaliteit
- Niet alleen korte maar ook lange termijn gezondheidsproblemen

PRE-ECLAMPSIE

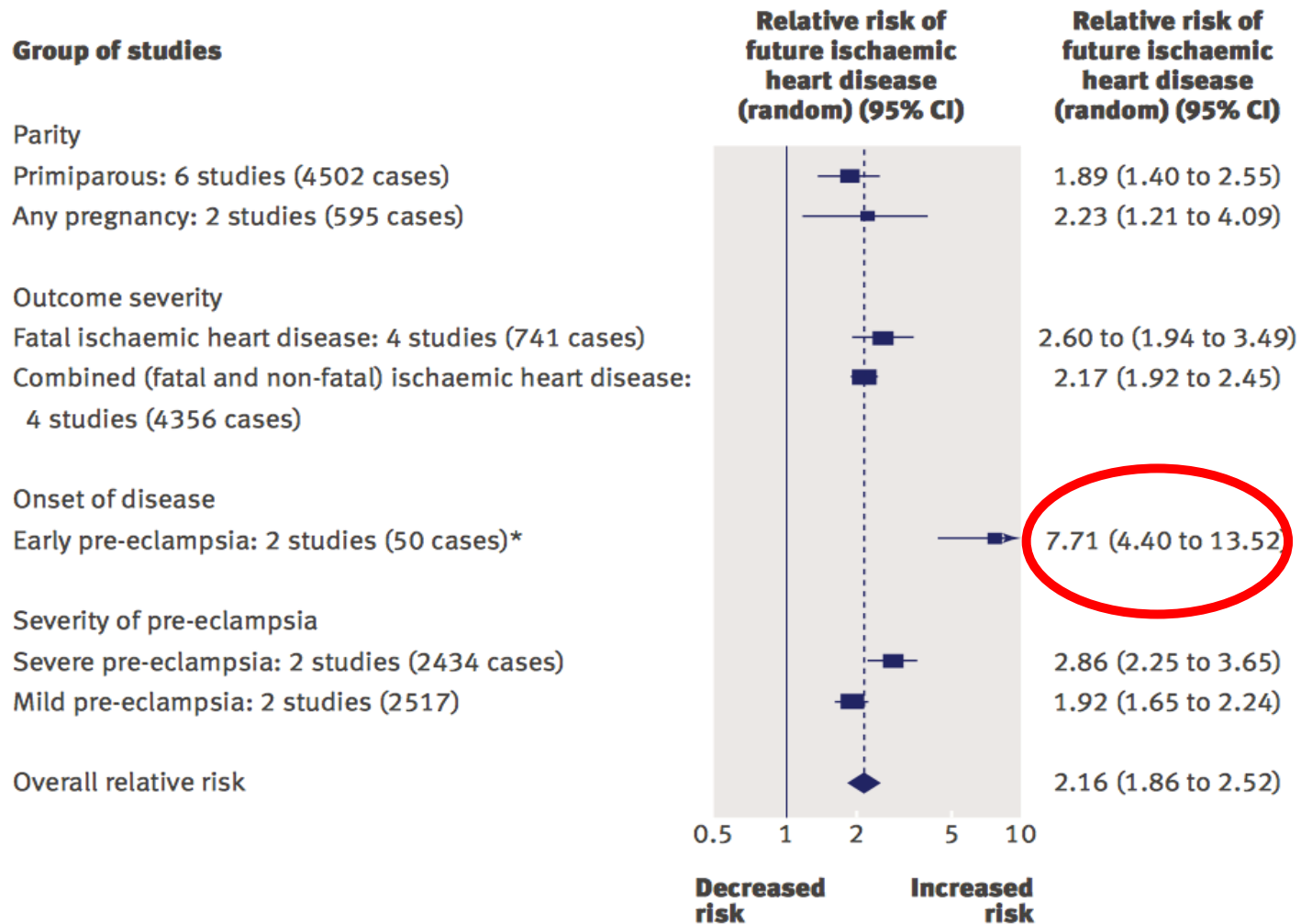
SIGNS & SYMPTOMS OF PREECLAMPSIA

MILD PREECLAMPSIA	ELEVATED BLOOD PRESSURE 	ELEVATED PROTEIN IN URINE 	SEVERE PREECLAMPSIA	HEADACHES 	CHANGES IN VISION 
	WEIGHT GAIN EXCEEDING 2 LBS/WK 	WATER RETENTION & SWELLING 		NAUSEA/VOMITING 	PAIN IN ABDOMEN & BACK 

PREECLAMPSIE EN HART- EN VAATZIEKTEN



PREECLAMPSIE EN HART- EN VAATZIEKTEN

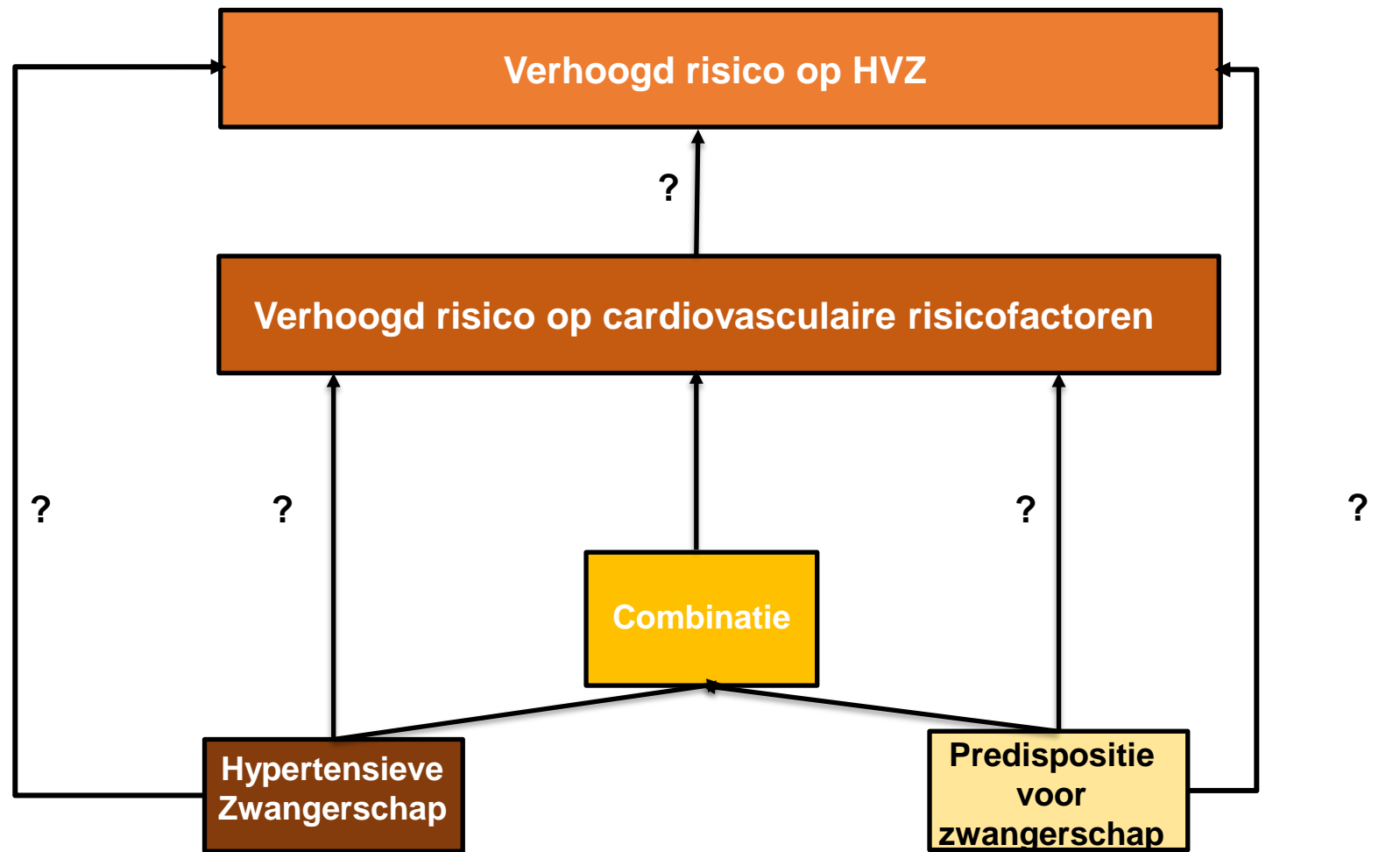


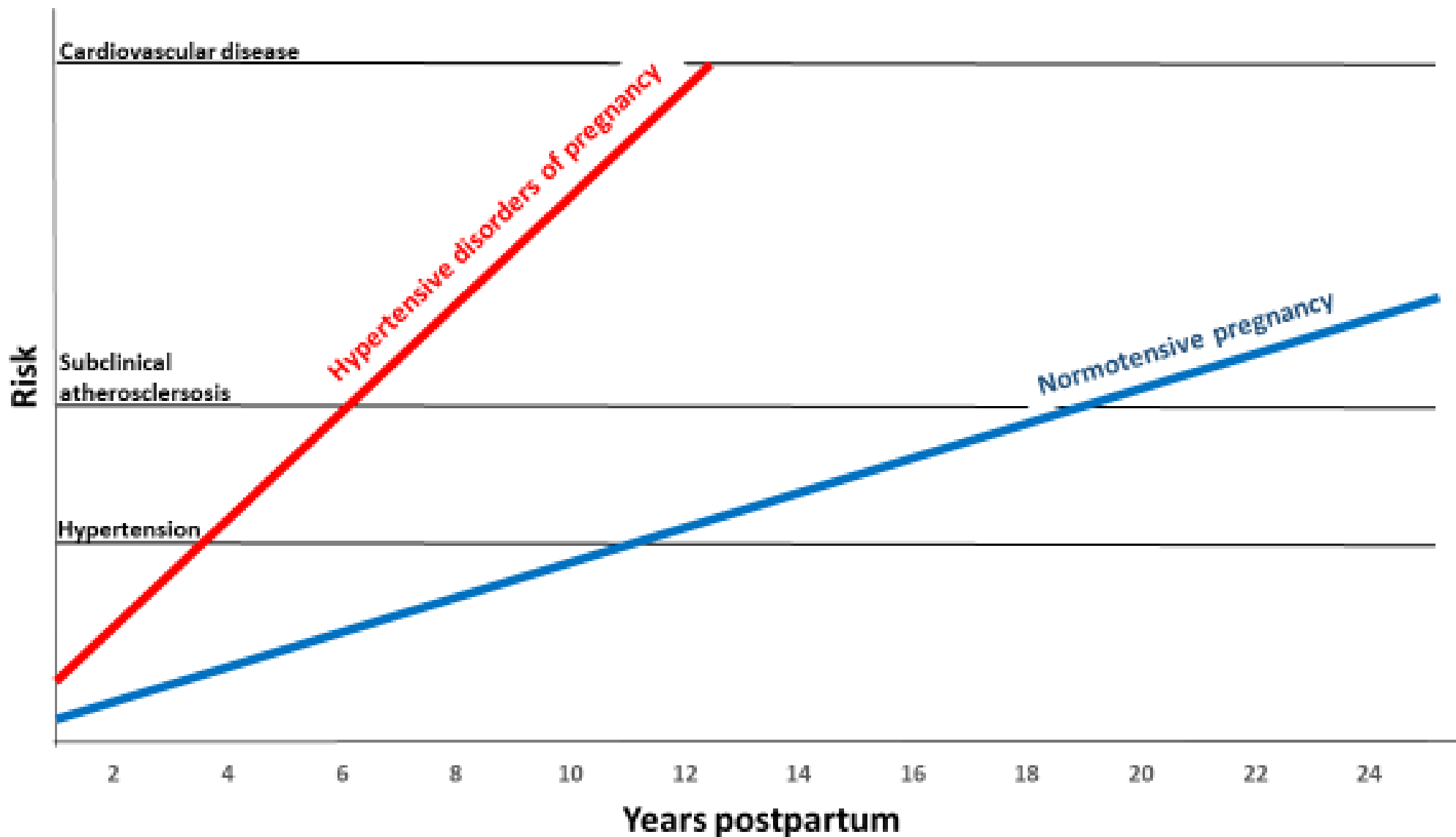
RISICOFACTOREN VOOR HVZ OP EEN RIJTJE

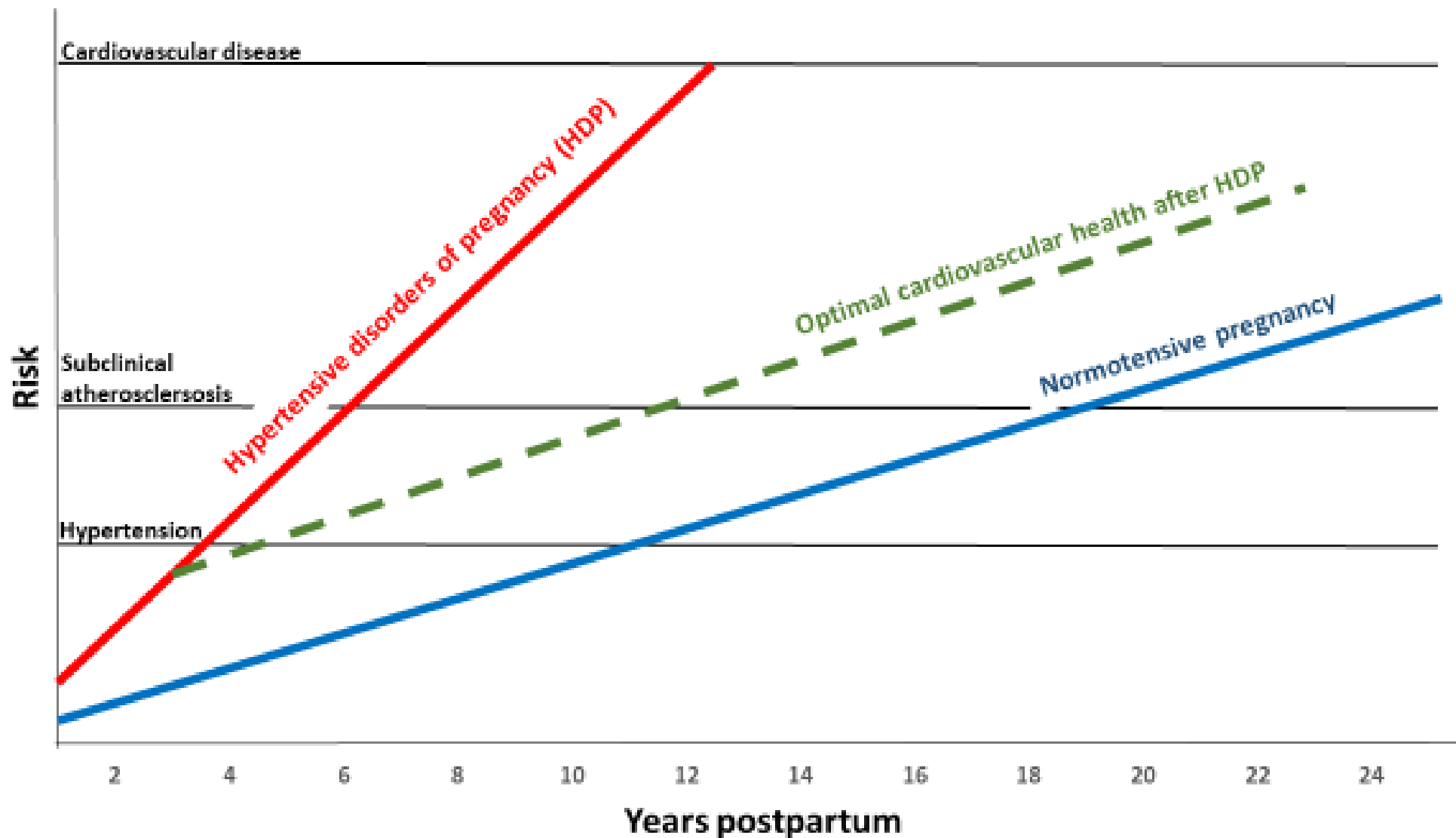
Risk Factor	Risk Ratio (95% CI)
PCOS	RR 1,38 (1,04-1,83)
POF	RR 1,61 (1.22-2.12)
IUGR	RR 1,66 (1,26-2,18)
Preterm delivery	RR 2,06 (1,58-2,18)
Pre-eclampsia	RR 2,15 (1,76-2,61)
Abdominal obesity	RR 2,26 (1.90-2.68)
Smoking	RR 2,86 (2.36-3.48)
Hypertension	RR 2,96 (2.57-3.39)
Diabetes	RR 4,26 (3.51-5.18)
Early onset pre-eclampsia	RR 7,71 (4.40-13.52)
Familial hypercholesterolemia	RR 8,54 (5.29-13.80)



PE ←————→ **HVZ**

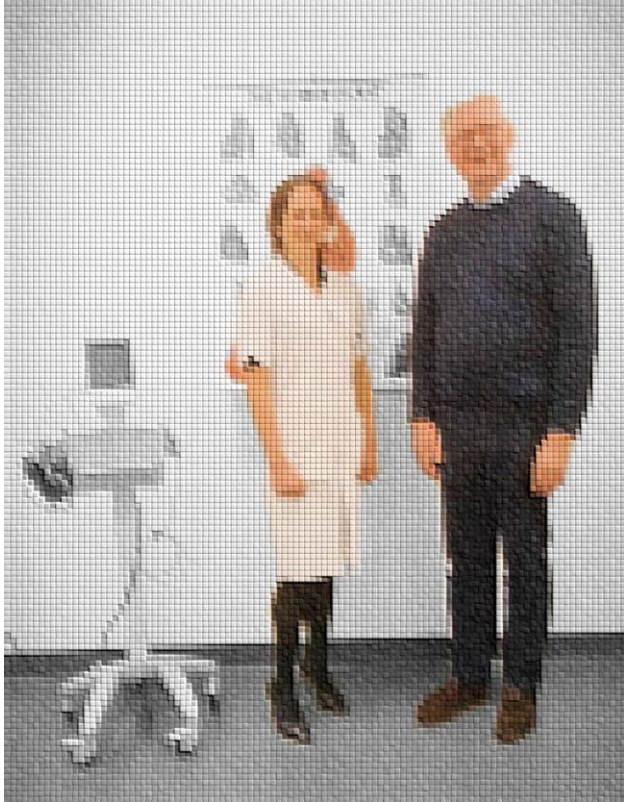






NAZORG NA PRE-ECLAMPSIA

Multidisciplinaire Follow-Up Pre-Eclampsie (FUPEC) polikliniek



Sinds 2011 FUPEC poli:

multidisciplinaire polikliniek Internist & gynaecoloog

Doel: lange termijn cardiovasculaire preventie

Doelgroep: vrouwen met ernstige PE* tijdens zwangerschap

Uniek cohort: >1500 vrouwen, verwijzingen uit heel NL

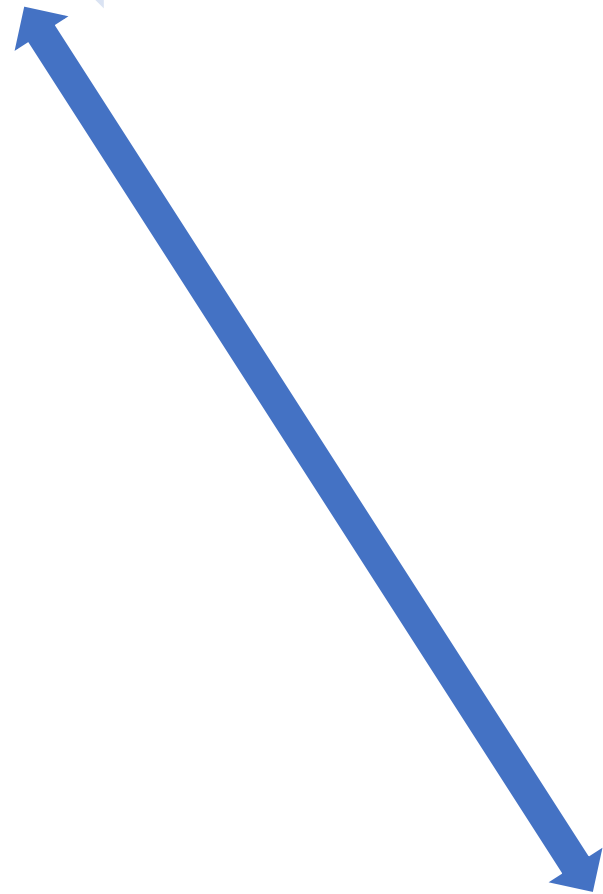
* ACOG criteria: RR>160/>110 en/of orgaanschade en/of IUGR



PE



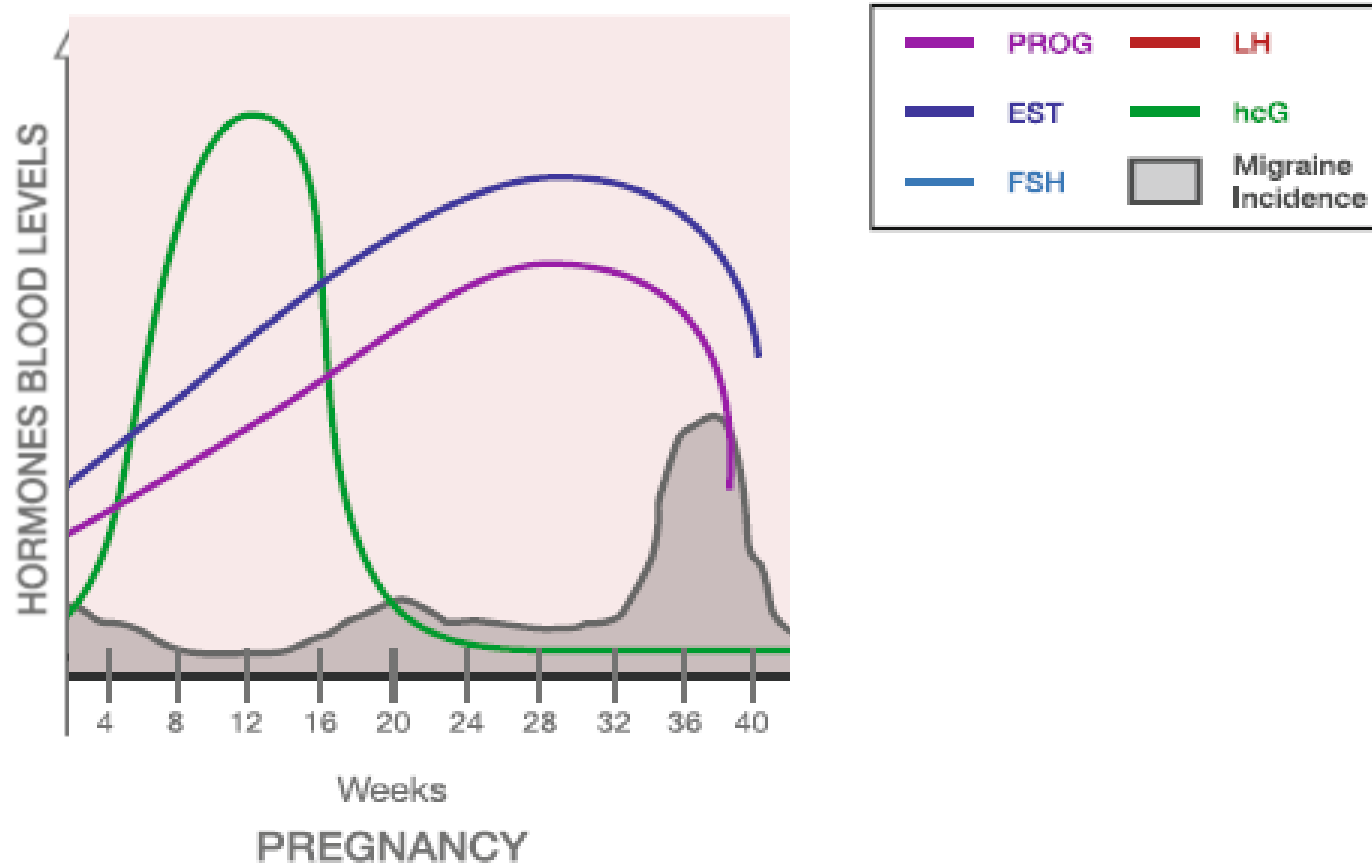
HVZ



MIGRAINE



MIGRAINE EN ZWANGERSCHAP



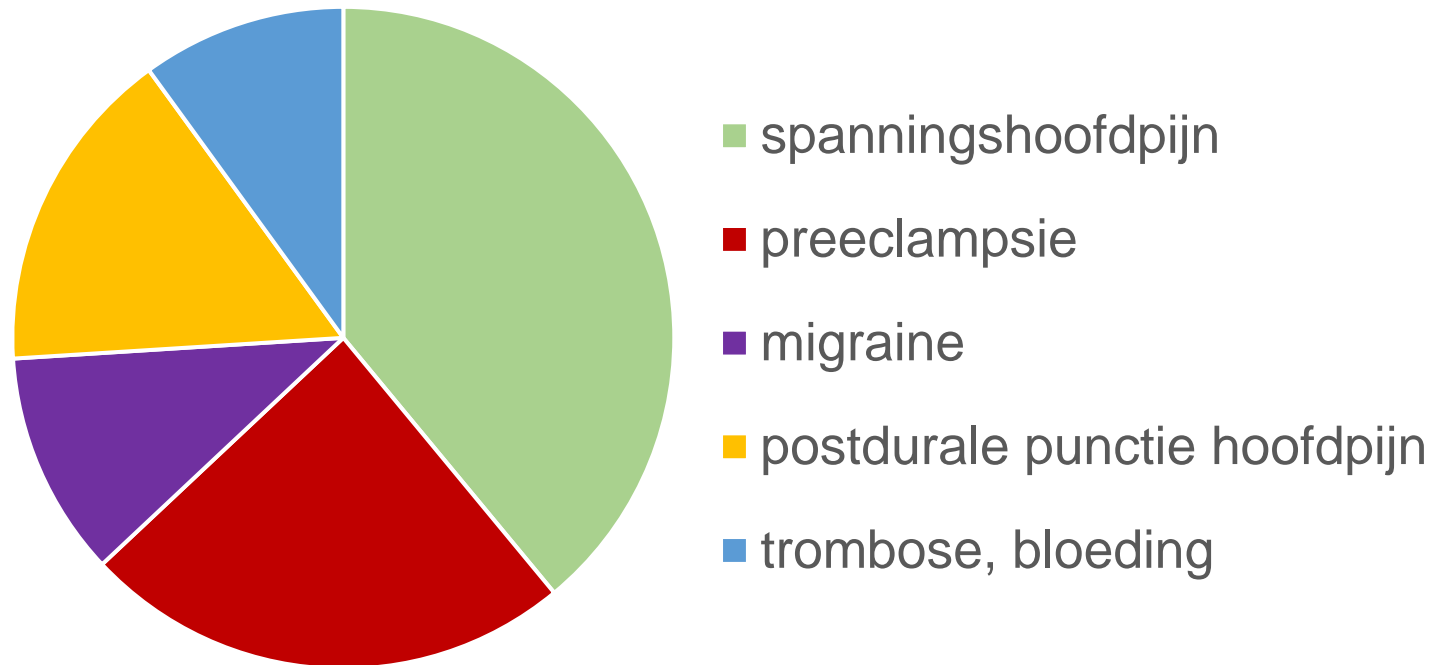
- 50-60% binnen 1 maand na bevalling terugkeer migraine
- Borstvoeding en leeftijd > 30 jaar vertraging terugkeer migraine

MIGRAINE EN PREECLAMPSIE

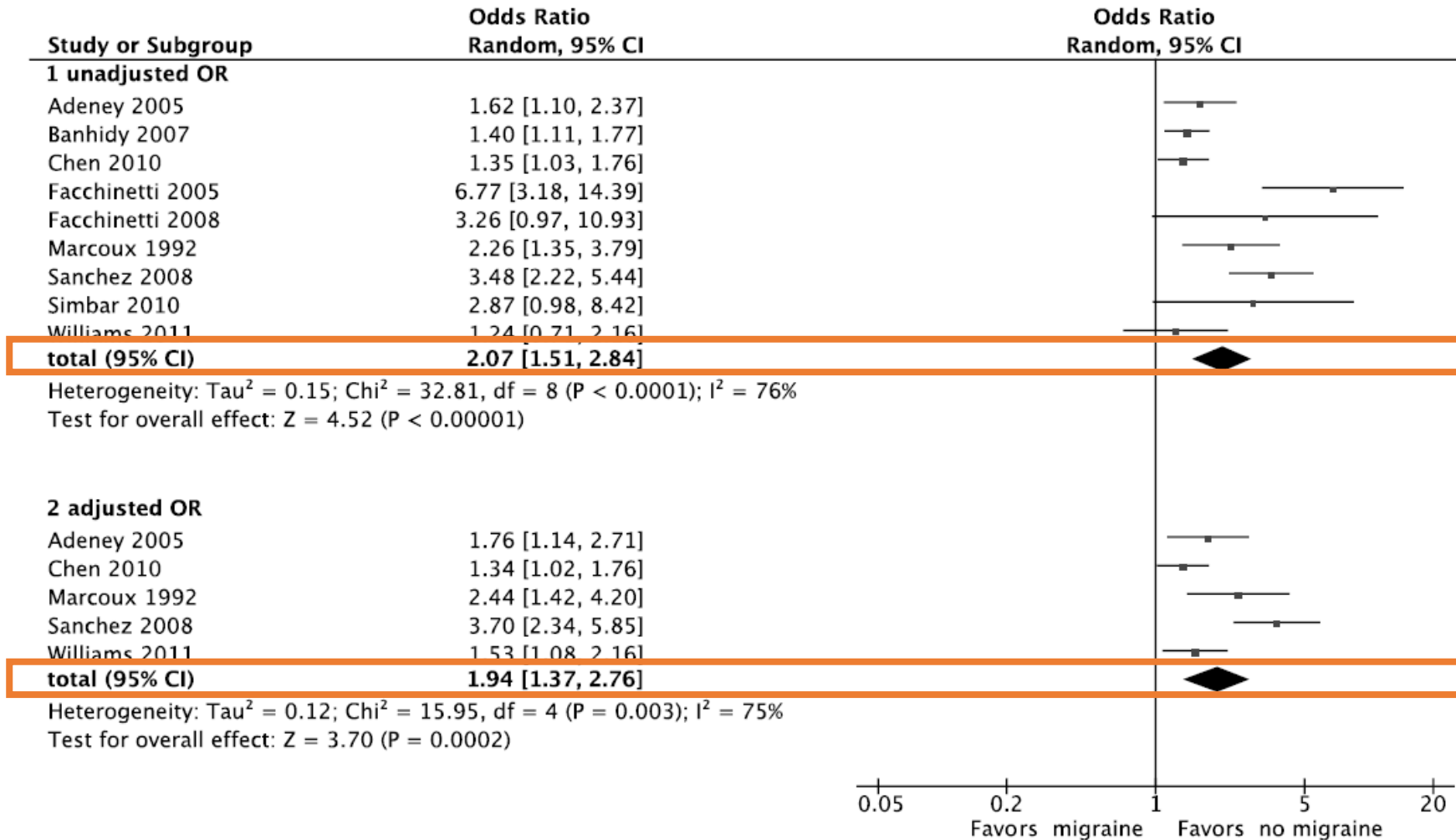


MIGRAINE EN ZWANGERSCHAP

- Prevalentie postpartum hoofdpijn 40%
- Nieuwe migraine 5%



MIGRAINE EN PREECLAMPSIE



MIGRAINE EN PREECLAMPSIE



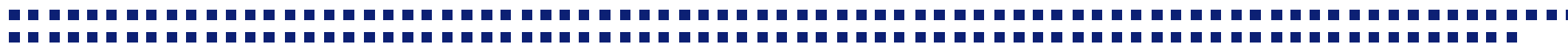
PERFORM! study: Pre-Eclampsia and other Risk Factors in relation to Migraine

Doel:

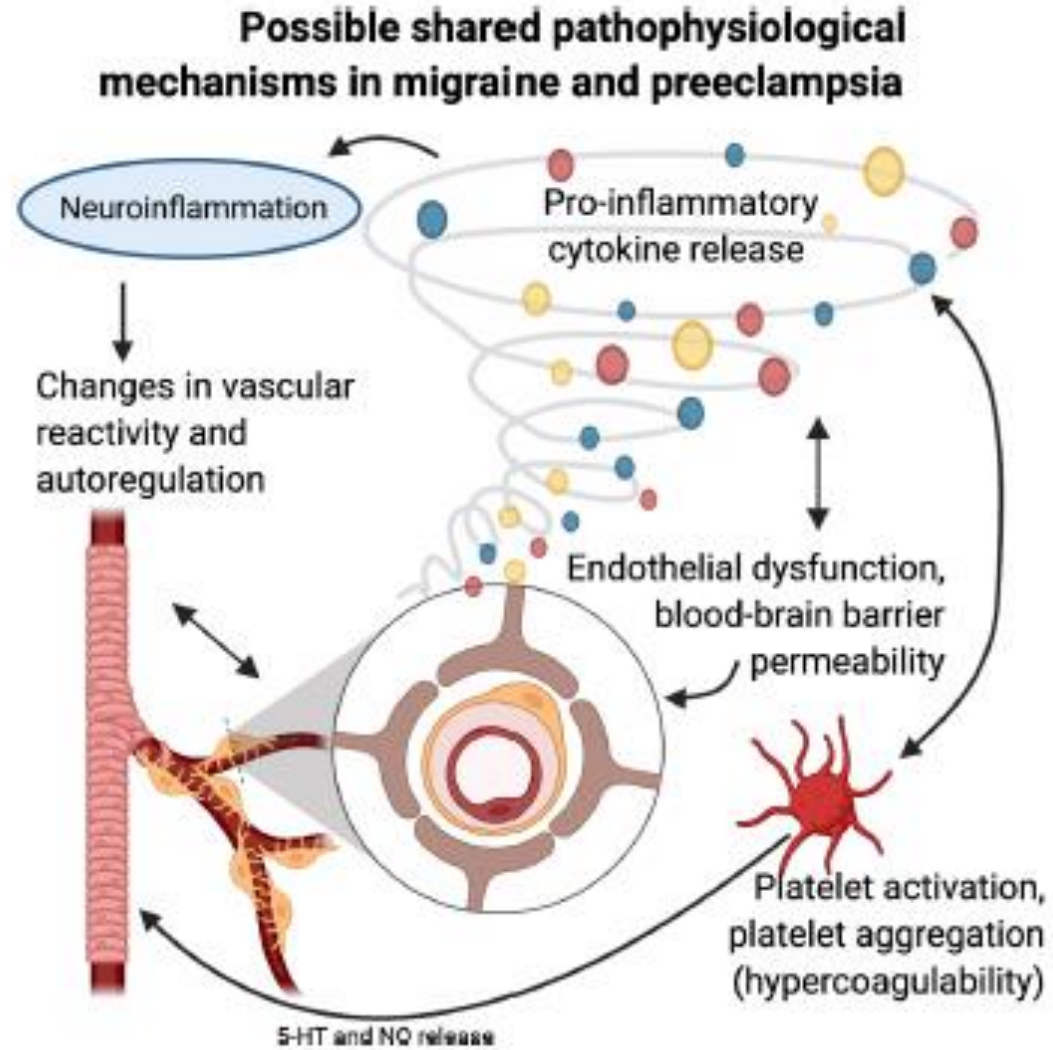
- 1-jaars prevalentie en incidentie van migraine in vrouwen met en zonder PE

Secundaire uitkomsten:

- Trends/veranderingen in migraine frequentie en ernst voor/gedurende/na zwangerschap in vrouwen met en zonder PE
- Impact van migraine en pre-eclampsia op QOL en depressie
- Vergelijken cognitieve performance in subset van vrouwen met en zonder PE/met en zonder migraine



MIGRAINE EN PREECLAMPSIE





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Review

Migraine and cardiovascular disease in women

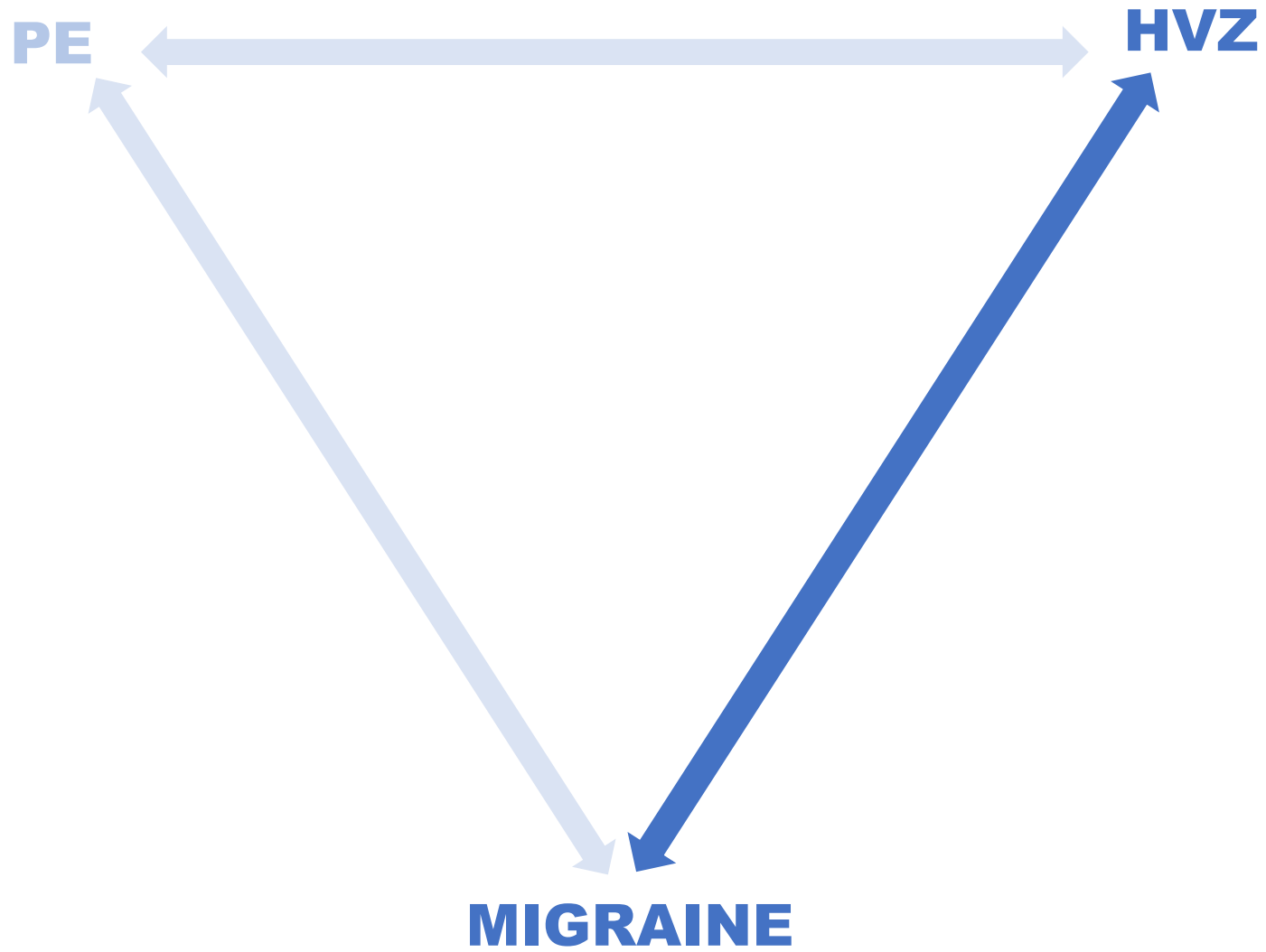
Katie M. Linstra^{a,b}, Khatera Ibrahimi^a, Gisela M. Terwindt^b, Marieke J.H. Wermer^b,
Antoinette MaassenVanDenBrink^{a,*}



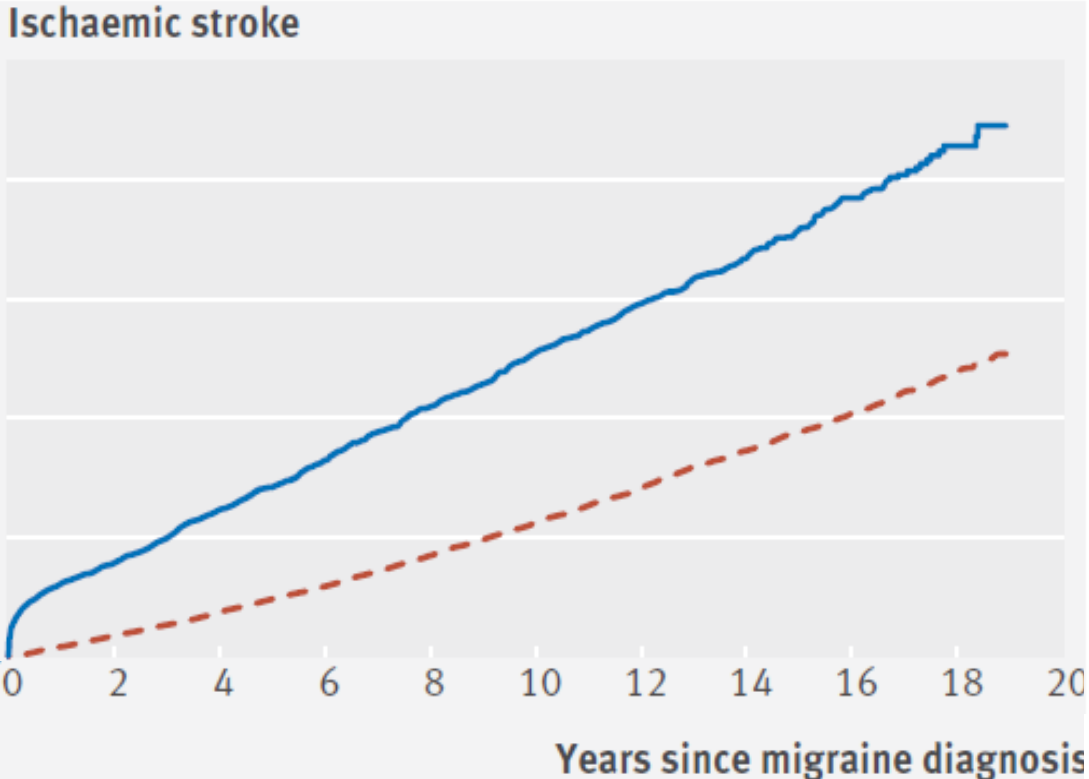
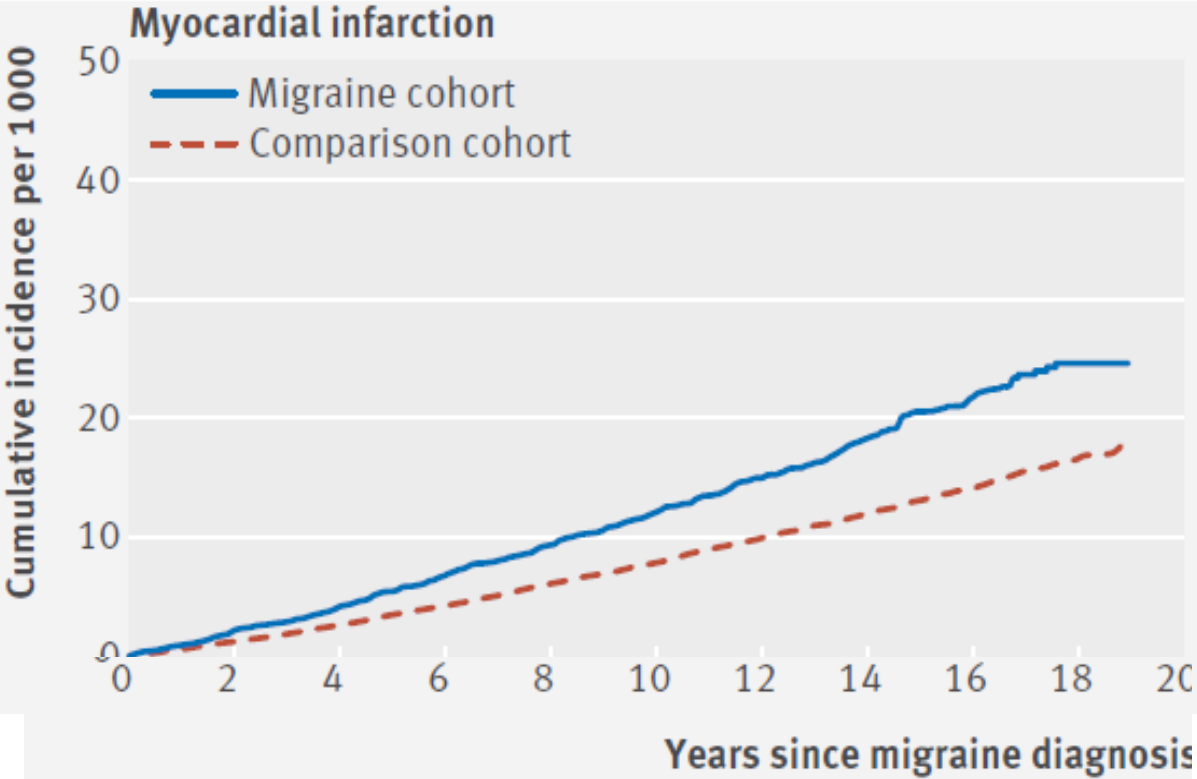
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^b Department of Neurology, Leiden University Medical Center, Leiden, The Netherlands

... of the blood vessels that normally has vasoprotective properties [15]. Endothelial dysfunction might be the vascular vulnerability of which both migraine and CVD are expressions, but high quality studies taking into account endothelium-dependent as well as – independent vascular function measurements are lacking. Interestingly, in preeclampsia similar abnormal vasoreactivity, altered platelet activity and other signs of endothelial dysfunction are found [7]. A search for shared mechanisms between preeclampsia and migraine may lead to interesting discoveries. For the time being, the pathological basis behind the migraine CVD relation remains puzzling, especially when regarded in the context of female health.



MIGRAINE ALS RISK FACTOR HVZ



MIGRAINE ALS RISICOFACOR HVZ

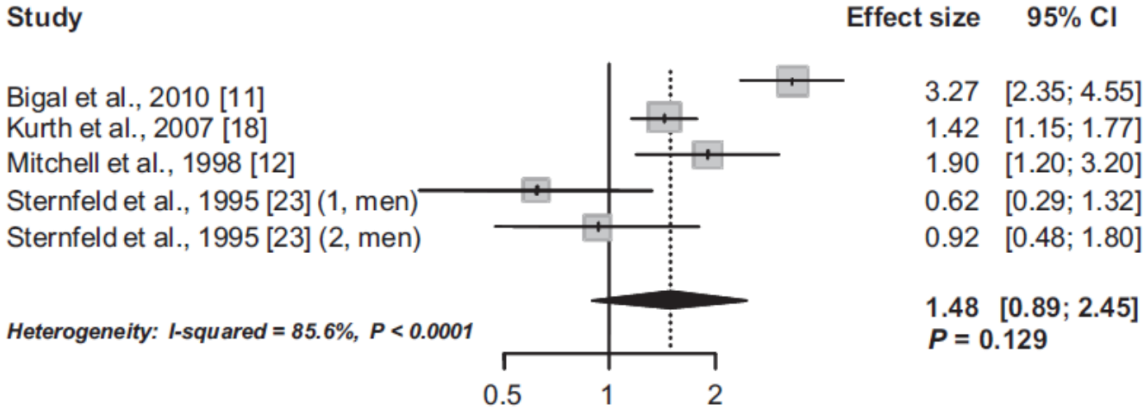
Table 2 | Risk of cardiovascular events in migraine and general population comparison cohorts (reference group), by absence or presence of aura

Years since diagnosis	Cumulative incidence per 1000 in migraine cohort, % (95% CI)		Adjusted hazard ratio (95% CI)*	
	Without aura	With aura	Without aura	With aura
Myocardial infarction				
0-1	0.55 (0.28 to 1.02)	1.04 (0.59 to 1.76)	1.07 (0.52 to 2.20)	1.95 (1.05 to 3.64)
>1-5	3.11 (2.27 to 4.20)	4.31 (3.14 to 5.82)	1.21 (0.87 to 1.68)	1.47 (1.05 to 2.05)
>5-19	16.26 (12.22 to 21.24)	22.63 (16.53 to 30.25)	1.28 (0.99 to 1.63)	1.92 (1.49 to 2.48)
0-19	19.65 (15.50 to 24.59)	27.58 (21.32 to 35.07)	1.22 (1.01 to 1.48)	1.74 (1.44 to 2.11)
Ischaemic stroke				
0-1	2.77 (2.06 to 3.68)	7.54 (6.15 to 9.16)	4.54 (3.16 to 6.51)	10.25 (7.65 to 13.72)
>1-5	7.01 (5.70 to 8.55)	7.25 (5.69 to 9.14)	1.90 (1.52 to 2.38)	2.03 (1.55 to 2.65)
>5-19	31.77 (23.20 to 42.38)	26.82 (20.00 to 35.18)	1.45 (1.20 to 1.76)	1.52 (1.21 to 1.91)
0-19	40.85 (32.10 to 51.11)	40.83 (33.63 to 49.02)	1.81 (1.58 to 2.06)	2.49 (2.16 to 2.86)

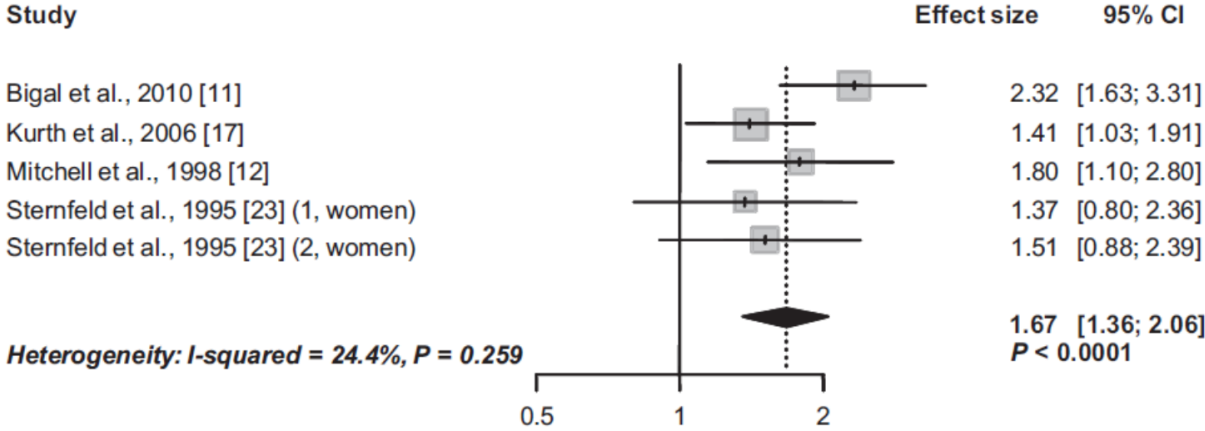
MIGRAINE ALS RISK FACTOR HVZ



Myocardial infarction



Myocardial infarction



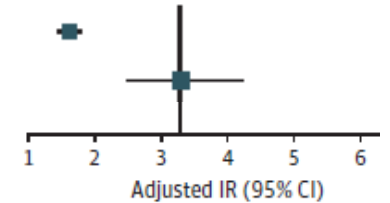
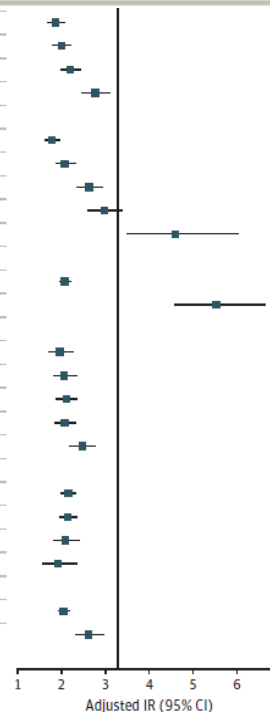
MIGRAINE ALS RISICOFACTOR HVZ IN VROUWEN

Risk factor	No. of participants	No. of events	Person-years	Adjusted IR (95% CI)
Migraine				
No migraine or migraine without aura	26 423	1556	550 656	2.08 (1.95-2.21)
Migraine with aura	1435	110	29 956	3.29 (2.72-3.98)
Cholesterol, mg/dL				
<160				
160-199				
200-239				
240-279				
≥280				
Smoking status				
Never				
Past				
Current				
HDL cholesterol, mg				
≥60	8302	411	177 640	1.86 (1.67-2.08)
50-59	7150	373	150 728	2.00 (1.79-2.22)
40-49	7584	469	156 945	2.21 (2.00-2.44)
<40	4822	413	95 299	2.76 (2.45-3.11)
Systolic BP, mm Hg				
<120	12 404	457	268 481	1.79 (1.63-1.97)
120-129	7304	399	152 326	2.08 (1.87-2.31)
130-139	4691	398	94 067	2.63 (2.35-2.94)
140-159	3141	354	60 101	2.97 (2.61-3.39)
≥160	318	58	5636	4.60 (3.50-6.04)
Diabetes				
No	27 176	1532	569 225	2.08 (1.95-2.21)
Yes	682	134	11 387	5.52 (4.58-6.65)
Triglycerides, mg/dL				
<77	5622	208	121 314	1.97 (1.71-2.28)
77-104	5602	267	119 410	2.06 (1.82-2.34)
105-137	5430	311	113 183	2.10 (1.87-2.36)
138-193	5658	363	116 122	2.07 (1.84-2.31)
≥194	5546	517	110 583	2.47 (2.19-2.77)
Body mass index				
<25	14 353	735	303 135	2.15 (1.98-2.33)
25-29	8566	571	177 193	2.14 (1.95-2.35)
30-34	3376	248	68 854	2.09 (1.82-2.41)
≥35	1563	112	31 431	1.92 (1.57-2.35)
Family history of MI				
No	23 913	1399	498 068	2.05 (1.92-2.19)
Yes	3945	267	82 544	2.62 (2.32-2.97)

Linear trend
P value

<.001

Risk factor	No. of participants	No. of events	Person-years	Adjusted IR (95% CI)
Migraine				
No migraine or migraine without aura	26 423	1556	550 656	2.08 (1.95-2.21)
Migraine with aura	1435	110	29 956	3.29 (2.72-3.98)



MIGRAINE ALS RISICOFACITOR HVZ IN VROUWEN

Odds ratios of ischemic stroke among females ages 15-49 years by history of migraine subtype and combined hormonal contraceptive use

History of migraines N = 9420	Current CHC use ^a	Cases	Controls	Ischemic stroke Adjusted OR ^b (95% CI)
Migraine with aura ^c	Yes	NR ^d	NR ^d	6.08 (3.07–12.05)
	No	74	126	2.65 (1.91–3.67)
Migraine without aura ^c	Yes	NR ^d	77	1.77 (1.09–2.88)
	No	255	466	2.24 (1.86–2.69)
No migraine	Yes	192	774	1.39 (1.16–1.67)
	No	1320	6073	Reference

CHC, combined hormonal contraception; CI, confidence interval; NR, not reported; OR, odds ratio.

MIGRAINE ALS RISICOFACITOR HVZ IN RICHTLIJNEN

Migraine	Presence of migraine with aura should be considered in CVD risk assessment. ^{179–181}	IIa	B
	Avoidance of combined hormonal contraceptives may be considered in women with migraine with aura. ^{182,183}	IIb	B

IS RELATIE MIGRAINE, PREECLAMPSIE EN HVZ VOOR IEDEREEN EEN TRIAS VAN RAMPspoED?





Met Pia



Bij de Koning & Koningin

European Institute of Women's Health
Women's Health Information Day
The Economy of Wellbeing: Healthy Women - Healthy Europe

6 November 2019, 13:00-15:00
 Room 6Q1, European Parliament, Brussels

Hosted by MEP Sirpa Pietikäinen
 In partnership with the European Institute of Women's Health (EIWH)

Overview

Under the new European Commission and European Parliament, policymakers will focus on sectors crucial to growth, competitiveness and job creation. The Finnish EU Presidency's main social and health theme is the 'Economy of Wellbeing' which examines gender equal economies and gender



Bij Europees Parlement



Met het NVG&G bestuur

TAKE HOME

- **Je gaat het pas zien als je het door hebt**
- **Denk niet in hokjes**
- **Just try new things. Don't be afraid.
Step out of your comfort zone and soar**



**EEN HOKJE IS ZO
ERG NOG NIET**

**ALS IEDEREEN
ERIN MAG**



ERASMUS MC

Erasmus