

Convegno regionale

LA NASCITA IN EMILIA-ROMAGNA

Presentazione del 16° Rapporto sui dati
del Certificato di Assistenza al Parto (CedAP)
Anno 2018

28 Novembre 2019

Ore 9,00- 14,00



Bologna

Sala 20 maggio 2012 - Regione Emilia-Romagna - viale della Fiera, 8

Epidurale in travaglio di parto: focus su parto operativo

Stefania Fieni

UOC Ostetricia e Ginecologia AOU Parma

When is Operative Vaginal Delivery Necessary?



- 1) Prolonged second stage of labor
- 2) Concerning fetal heart tracing.
- 3) Maternal diseases that do not allow them to exert or push enough to deliver fully without help.

When is Operative Vaginal Delivery Necessary?



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STUDI DI POPOLAZIONE



NIH Public Access

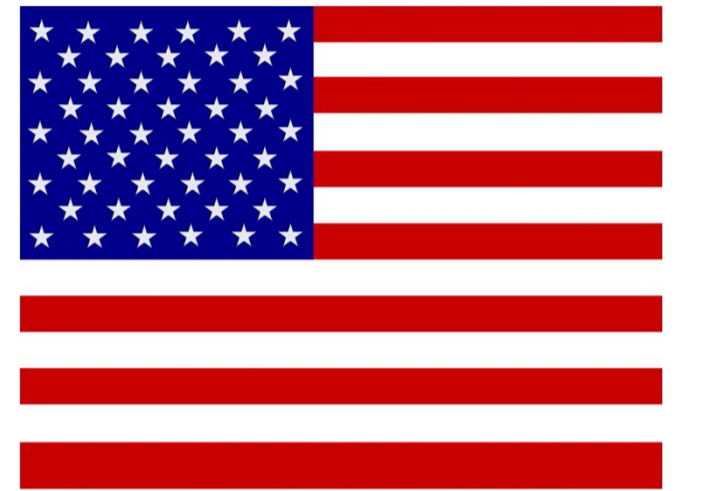
Author Manuscript

Obstet Gynecol. Author manuscript; available in PMC 2013 May 21.

Published in final edited form as:

Obstet Gynecol. 2010 December ; 116(6): 1281–1287. doi:10.1097/AOG.0b013e3181fdef6e.

2010



Contemporary Patterns of Spontaneous Labor With Normal Neonatal Outcomes

Jun Zhang, PhD, MD¹, Helain J. Landy, MD², D. Ware Branch, MD³, Ronald Burkman, MD⁴, Shoshana Haberman, MD, PhD⁵, Kimberly D. Gregory, MD, MPH⁶, Christos G. Hatjis, MD⁷, Mildred M. Ramirez, MD⁸, Jennifer L. Bailit, MD, MPH⁹, Victor H. Gonzalez-Quintero, MD, MPH¹⁰, Judith U. Hibbard, MD¹¹, Matthew K. Hoffman, MD, MPH¹², Michelle Kominiarek, MD¹³, Lee A. Learman, MD, PhD¹³, Paul Van Veldhuisen, PhD¹⁴, James Troendle, PhD¹, and the Eunice Kennedy Shriver National Institute of Child Health and Human Development Early Labor Trial Group

- A multicenter retrospective study
- 19 hospitals United States
- 62,400
- 2002 and 2008
- duration of the second stage of labor was approximately 50 minutes longer in patients EA (3.6 versus 2.8 hours)

Second Stage of Labor and Epidural Use

A Larger Effect Than Previously Suggested

Yvonne W. Cheng, MD, PhD, Brian L. Shaffer, MD, James M. Nicholson, MD, MSCE, and Aaron B. Caughey, MD, PhD

2014

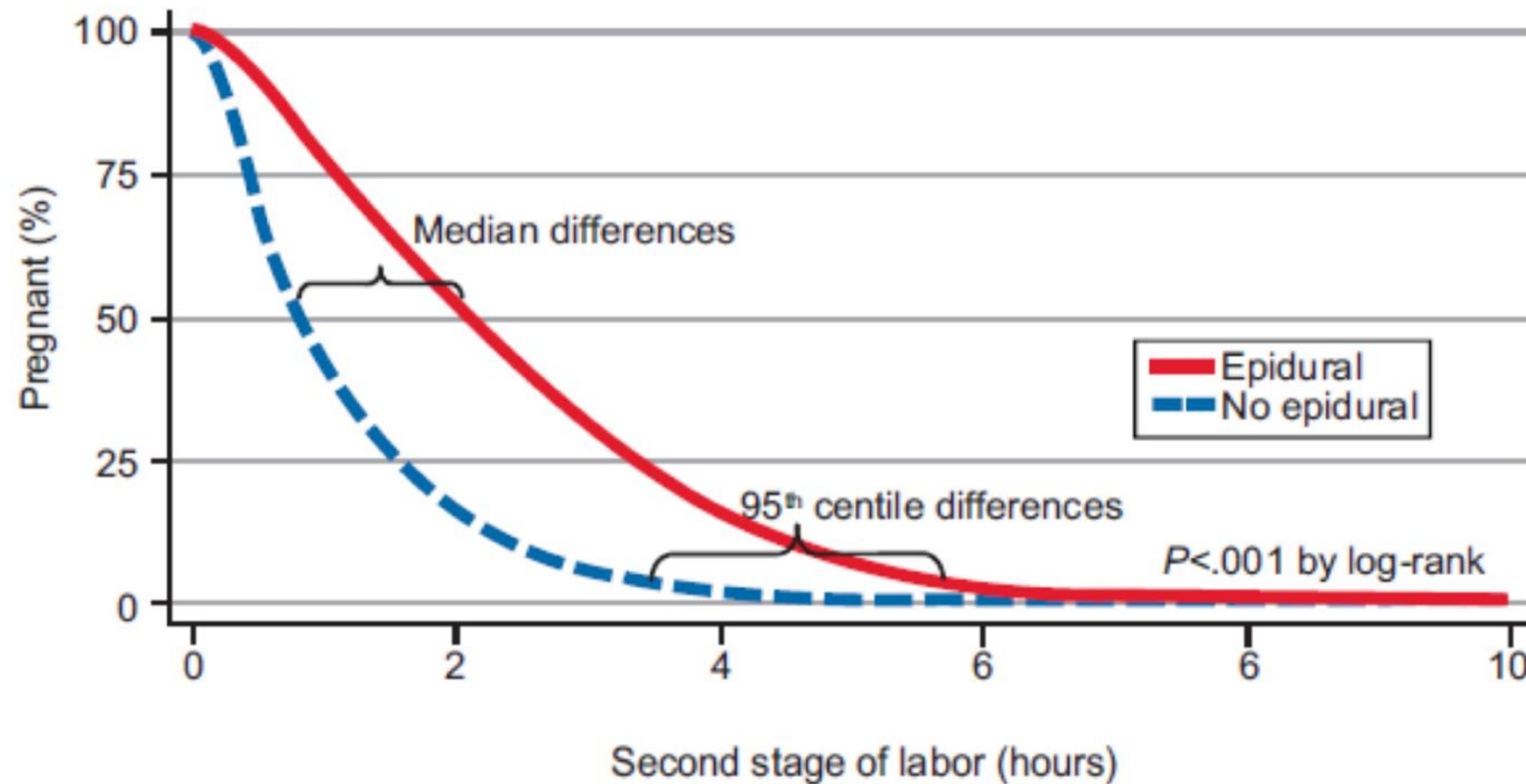
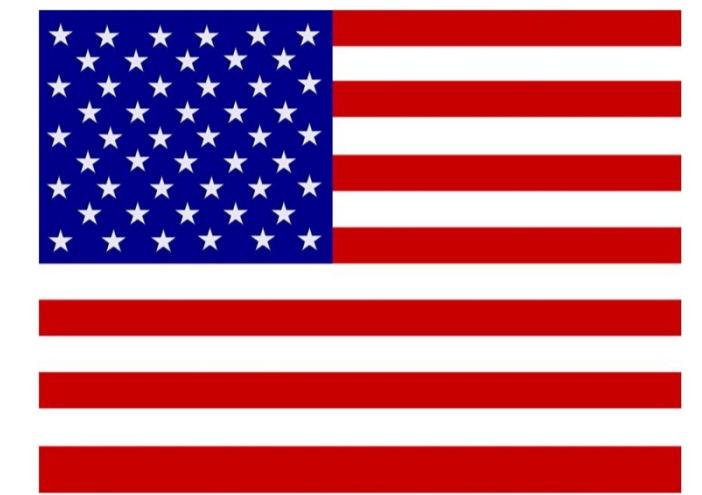


Fig. 1. Kaplan-Meier survival analysis of second stage of labor duration in nulliparous women with and without an epidural during labor.

Cheng. Epidural and Length of Second Stage of Labor. Obstet Gynecol 2014.

The impact of epidural analgesia on the duration of the second stage of labor

Anat Shmueli MD^{1,2}  | Lina Salman MD^{1,2}  | Sharon Orbach-Zinger MD^{2,3} |

- Retrospective analysis
- one tertiary hospital.
- 15 500 deliveries
- Calculated the second- stage length and presented it as 5th, 50th, and 95th percentiles stratified by epidural analgesia and parity

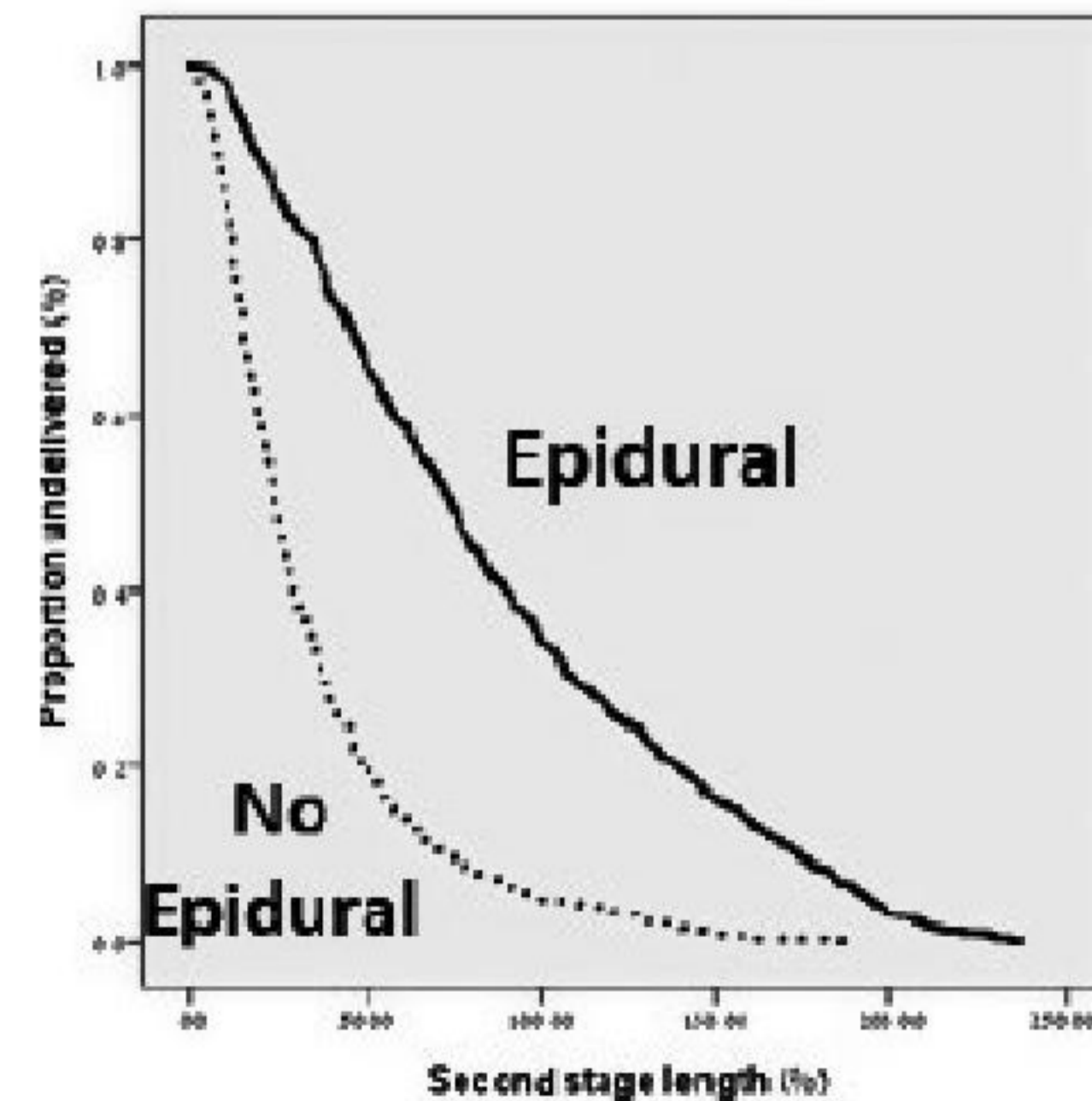


2017

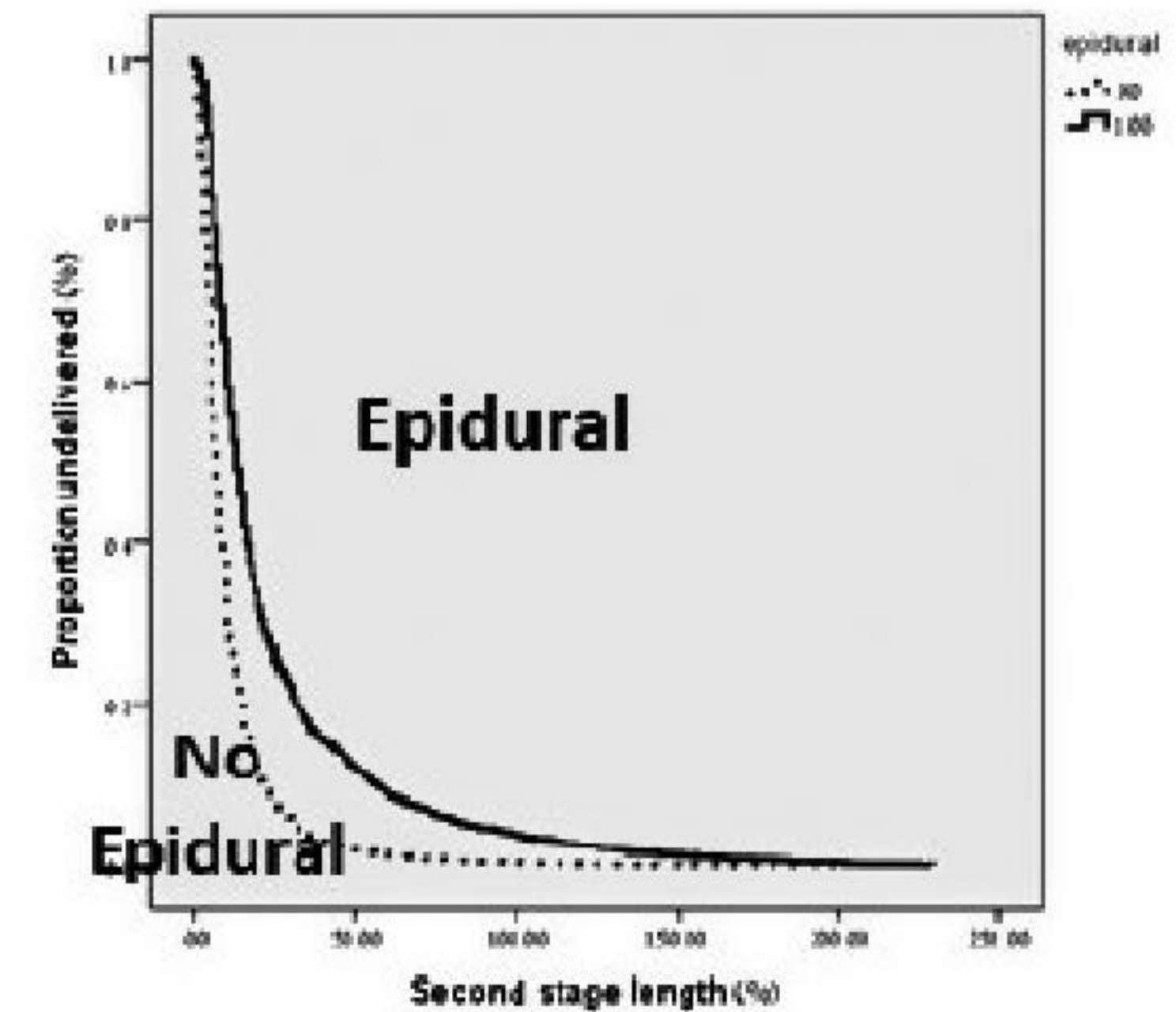
TABLE 2 Second-stage duration percentiles for all women, and for Medical Center, 2012-2014

	All cohort	
	N	5th
Nulliparous, epidural analgesia (min)	4212	16
Nulliparous, no epidural (min)	891	5
Multiparous, epidural analgesia (min)	6329	3
Multiparous, no epidural (min)	4068	1

Nulliparous, Spontaneous onset, No Oxytocin



Multiparous, Spontaneous onset, No Oxytocin





Contents lists available at ScienceDirect

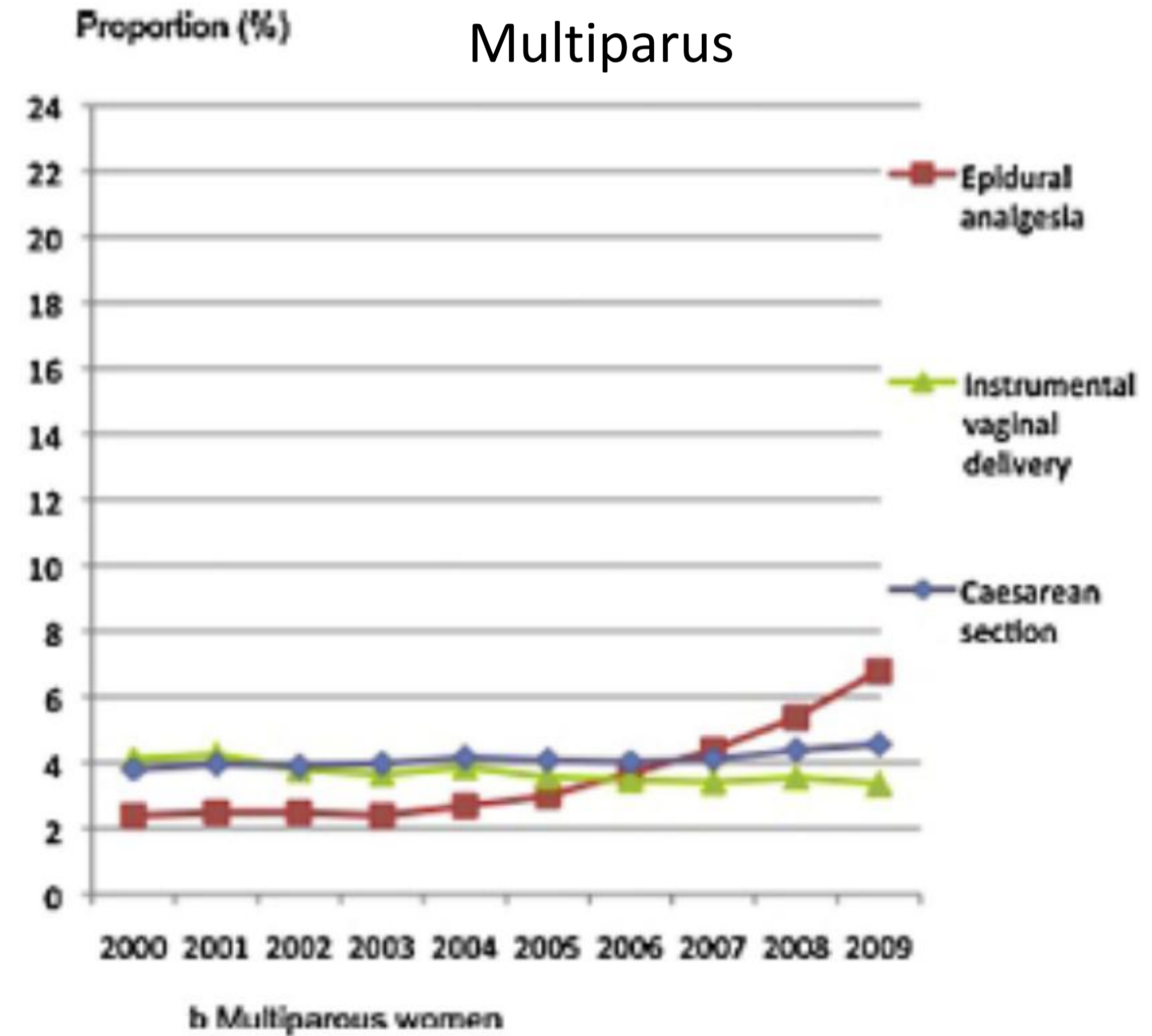
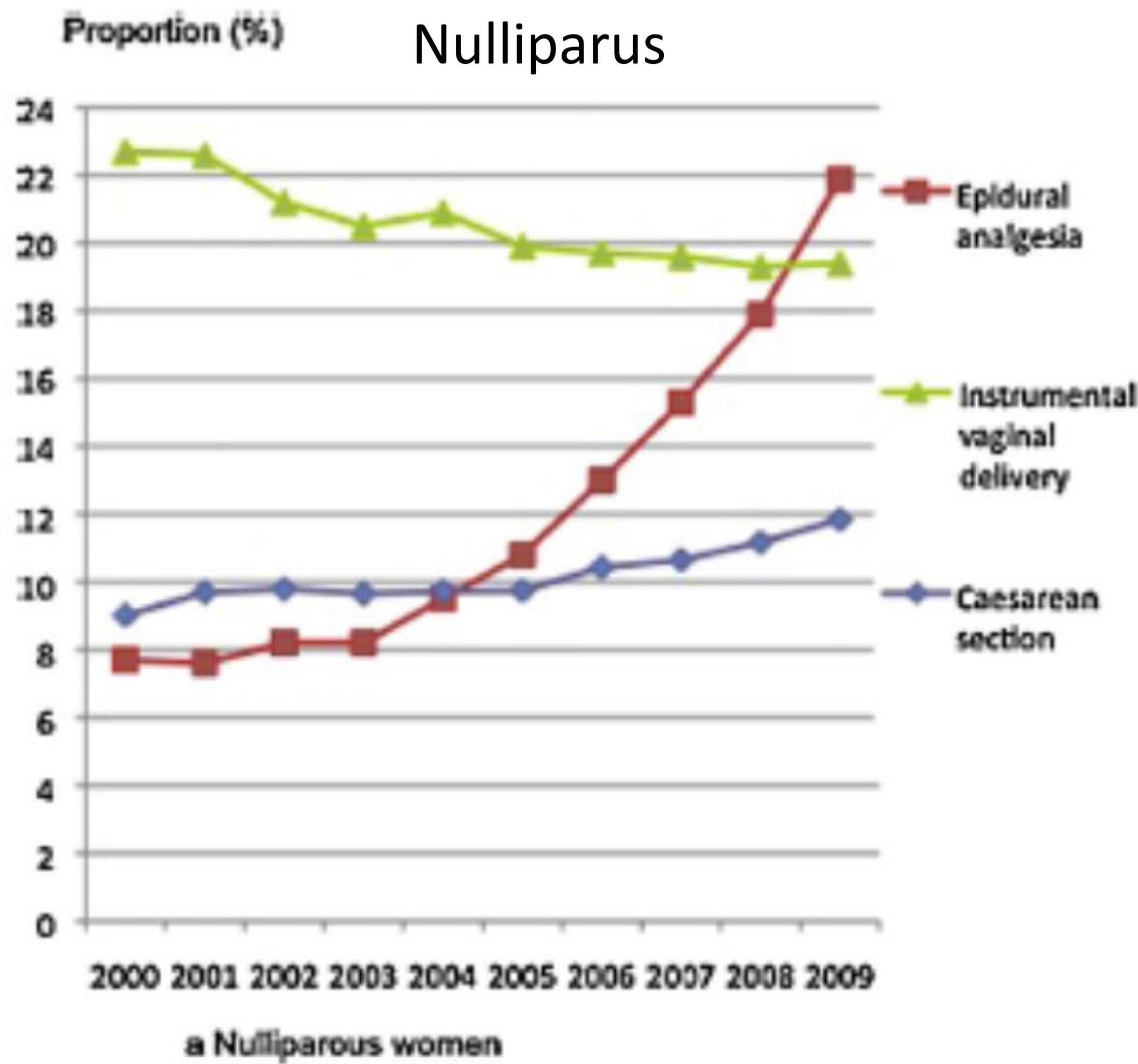
European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb



Epidural analgesia and operative delivery: a ten-year population-based cohort study in The Netherlands

Martine M.L.H. Wassen^{a,*}, Chantal W.P.M. Hukkelhoven^b, Hubertina C.J. Scheepers^a, Luc J.M. Smits^c, Jan G. Nijhuis^a, Frans J.M.E. Roumen^d





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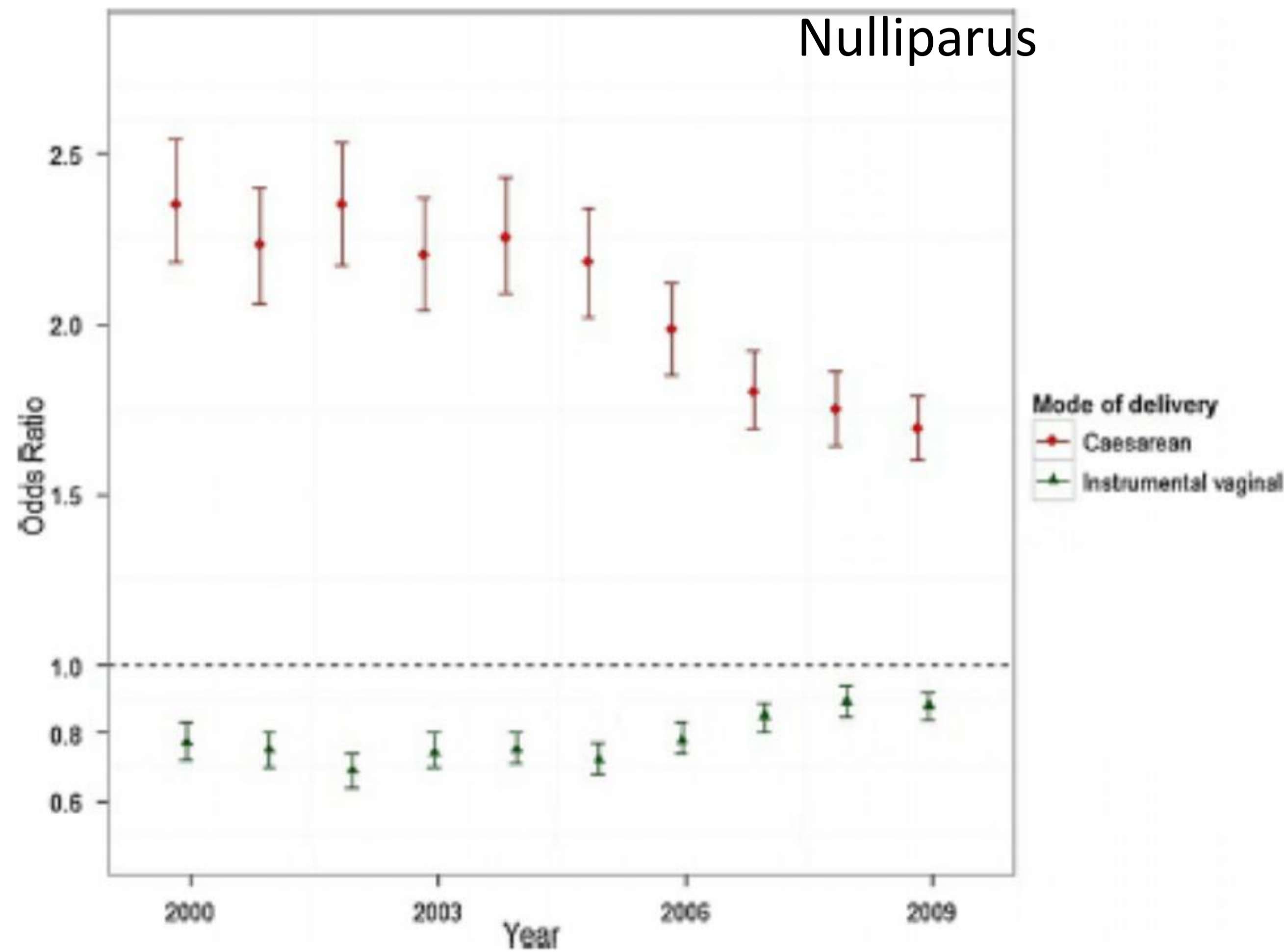


Epidural analgesia and operative delivery: a ten-year population-based cohort study in The Netherlands

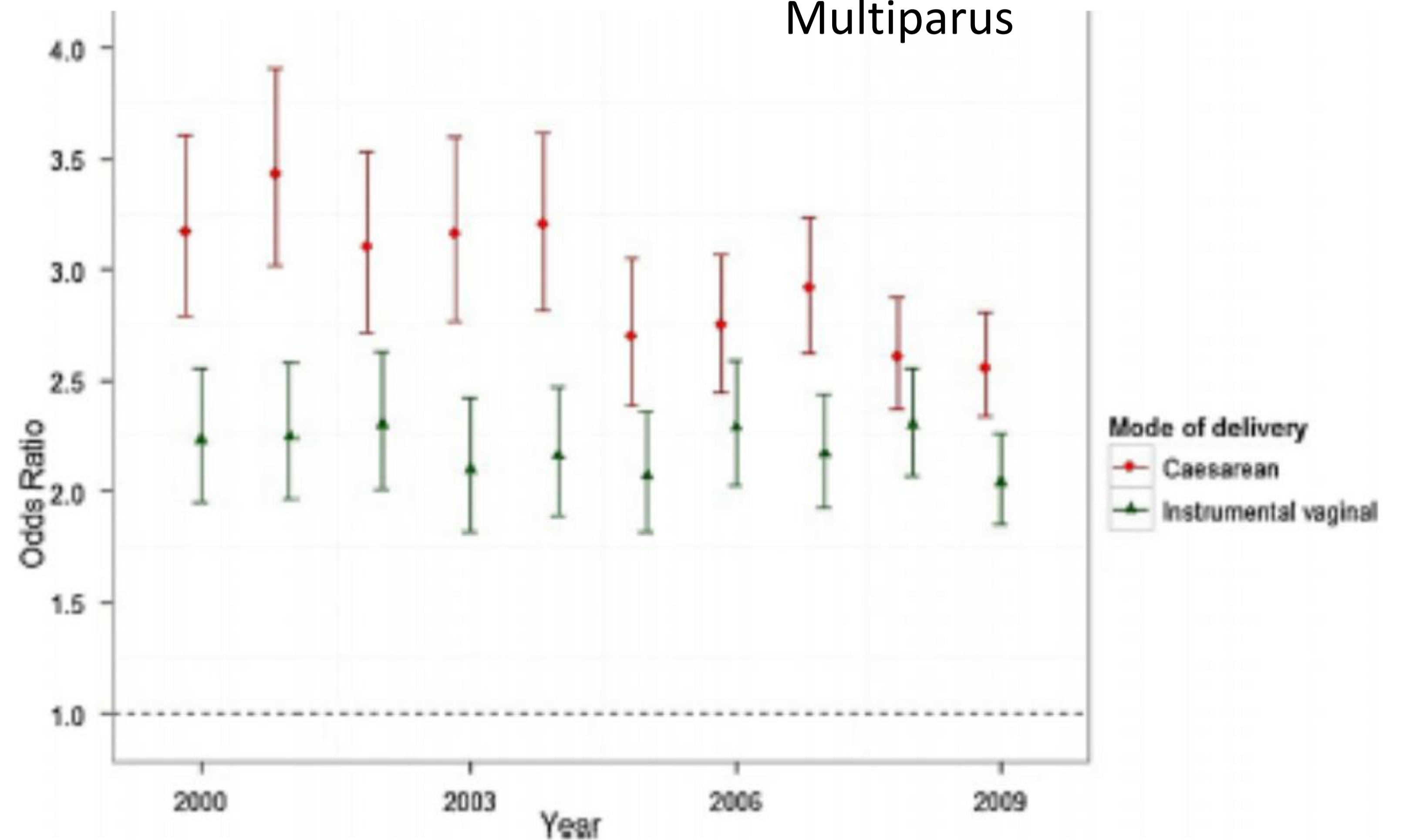
Martine M.L.H. Wassen^{a,*}, Chantal W.P.M. Hukkelhoven^b, Hubertina C.J. Scheepers^a, Luc I.M. Smits^c, Ian G. Nijhuis^a, Frans I.M.E. Roumen^d



Nulliparus



Multiparus



Randomized controlled trials

Effect of low-dose mobile versus traditional epidural techniques on mode of delivery: a randomised controlled trial

Comparative Obstetric Mobile Epidural Trial (COMET) Study Group UK*

Lancet 2001; **358**: 19–23

- 1054 nulliparous women requesting epidural
- traditional (n=353),
- low-dose combined spinal epidural (n=351),
- or low-dose infusion epidural (n=350).

Delivery	Traditional epidural (n=353)	Combined spinal epidural (n=351)	Low-dose infusion epidural (n=350)
Normal vaginal	124 (35%)	150 (43%)	150 (43%)
Instrumental vaginal	131 (37%)	102 (29%)	98 (28%)
Caesarean section	98 (28%)	99 (28%)	102 (29%)

REPORTS OF ORIGINAL INVESTIGATIONS

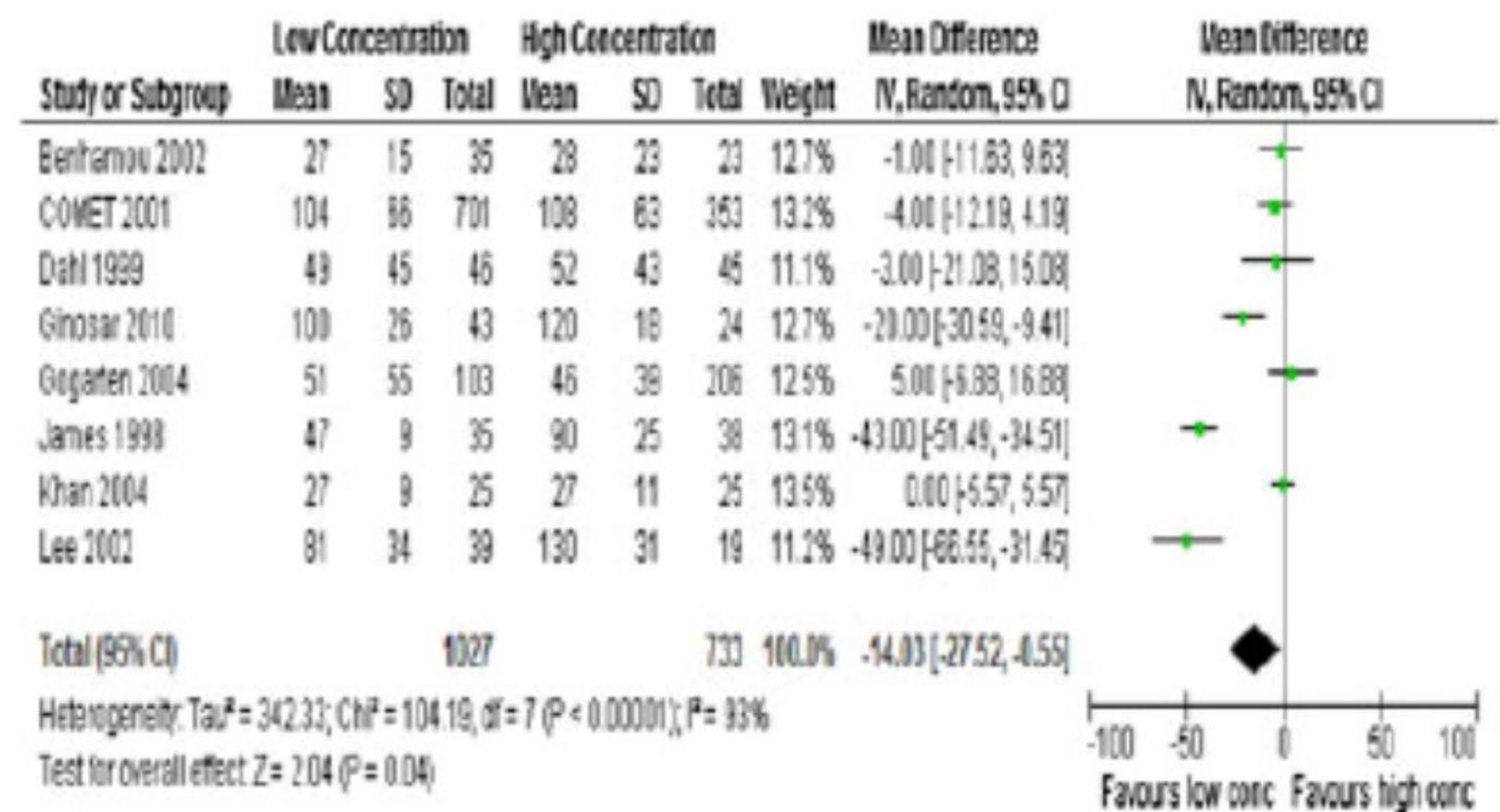
The effect of low concentrations *versus* high concentrations of local anesthetics for labour analgesia on obstetric and anesthetic outcomes: a meta-analysis

11 studies (8 bupivacaine and 3 ropivacaine studies),
 1,145 patients in the LCs group and 852 patients in the HCs group

The LCs group

- less motor block (OR 3.9; 95% CI 1.59 to 9.55; P = 0.003),
- greater ambulation (OR 2.8; 95%CI 1.1 to 7.14; P = 0.03),
- less urinary retention (OR 0.42; 95% CI 0.23 to 0.73; P = 0.002),
- shorter second stage of labour (WMD -14.03; 95% CI -27.52 to -0.55; P = 0.04)

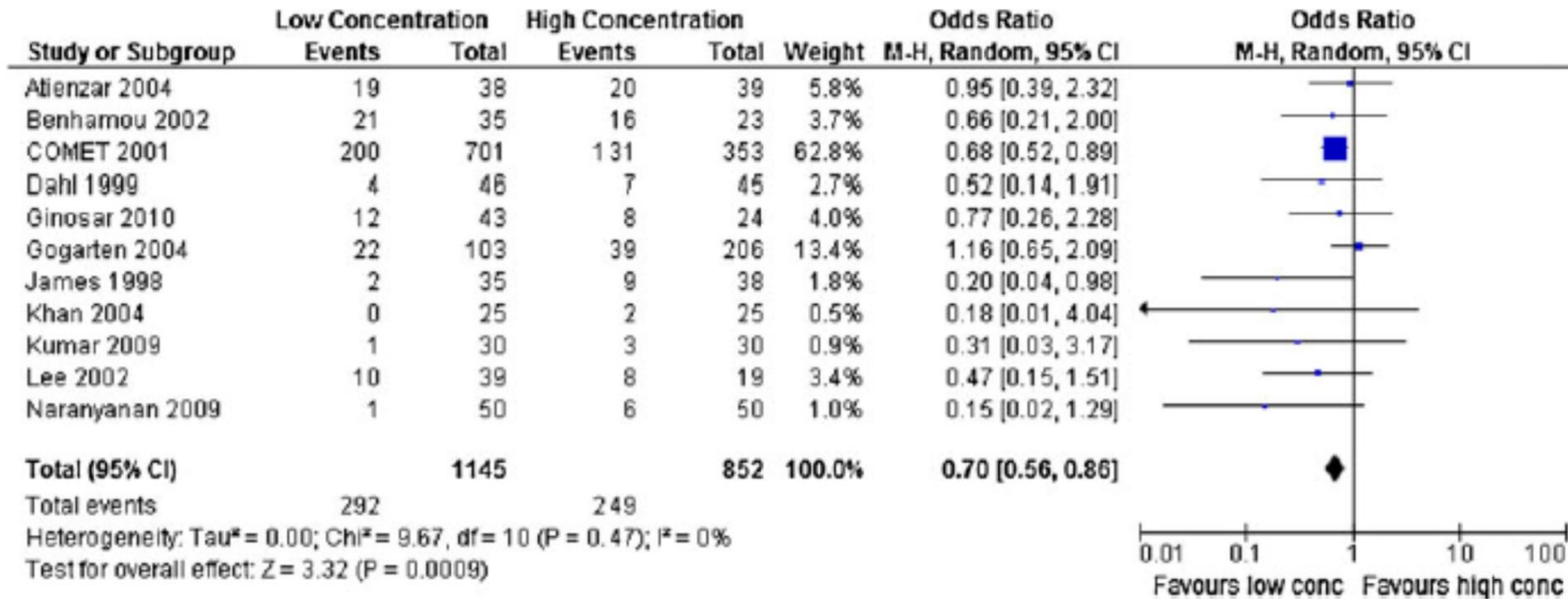
(d) Duration of 2nd stage



REPORTS OF ORIGINAL INVESTIGATIONS

The effect of low concentrations *versus* high concentrations of local anesthetics for labour analgesia on obstetric and anesthetic outcomes: a meta-analysis

AVD



Effects of Epidural Labor Analgesia With Low Concentrations of Local Anesthetics on Obstetric Outcomes: A Systematic Review and Meta-analysis of Randomized Controlled Trials

Ting-Ting Wang, MD, Shen Sun, MD, and Shao-Qiang Huang, MD

- 10 studies (1809 women)
- RCTs that compared EA utilizing LCLAs with non EA
- No significant difference in the duration of the second stage of labor (mean difference = 5.71 minutes, 95% confidence interval [CI], -6.14 to 17.83; $P = .36$)

Table 2. Results of Meta-analysis of the Comparison of Epidural Labor Analgesia With Low Concentrations of Local Anesthetics With Nonepidural Analgesia

Outcomes	Trails	Participants	Statistical Method	Effect Estimate	I ²	P
Duration of second stage (min)	8	1445	RE, MD, 95% CI	5.71 [-6.41, 17.83]	94%	.36
Instrumental birth rate	8	1442	RE, RR, 95% CI	1.52 [0.97, 2.40]	38%	.07
Cesarean delivery rate	9	1681	FE, RR, 95% CI	0.80 [0.6, 1.05]	0%	.11
Duration of first stage (min)	4	438	FE, MD, 95% CI	17.34 [-5.89, 40.56]	0%	.14
Spontaneous vaginal delivery rate	6	1456	RE, RR, 95% CI	0.98 [0.91, 1.06]	25%	.62

Abbreviations: CI, confidence interval; FE, fixed-effect model; I², a test for heterogeneity, I² > 50% indicates substantial heterogeneity; MD, mean difference; RE, random-effect model; RR, risk ratio.

Epidural versus non-epidural or no analgesia for pain management in labour (Review)

 40 studies
11000 women

Anim-Somuah M, Smyth RMD, Cyna AM, Cuthbert A

Outcome	Trials	Women	RR	95% CI	minutes
Length of 1° stage of labour	12	2981		12.91 - 49.92	18.51
Length of 2° stage of labour	15	4233		6.67 - 20.66	13.66
Use of oxytocin	13	8351	1.12	1.00-1.26	
Malposition	4	673	1.40	0.98 - 1.99	
Maternal hypotension	33	3874	11.34	1.89-67.95	
Fever > 38°	9	4276	2.51	1.67-3.77	
Motor blockade	3	322	31.71	4.16-241.99	

2018

40 studies
11000 women

Epidural versus non-epidural or no analgesia for pain management in labour (Review)

Anim-Somuah M, Smyth RMD, Cyna AM, Cuthbert A

Outcome	Trials	Women	RR	95% CI	NNT
Instrumental delivery	30	9948	1.44	1.29 - 1.60	20
CS for dystocia	12	5001	0.90	0.73 to 1.12	
CS for fetal distress	11	4816	1.43	1.03 to 1.97	
CS	33	10350	1.07	0.96 to 1.18	

Un'analisi post hoc comprendente solo i trials successivi al 2005 non ha mostrato un'associazione significativa EA/ VAD



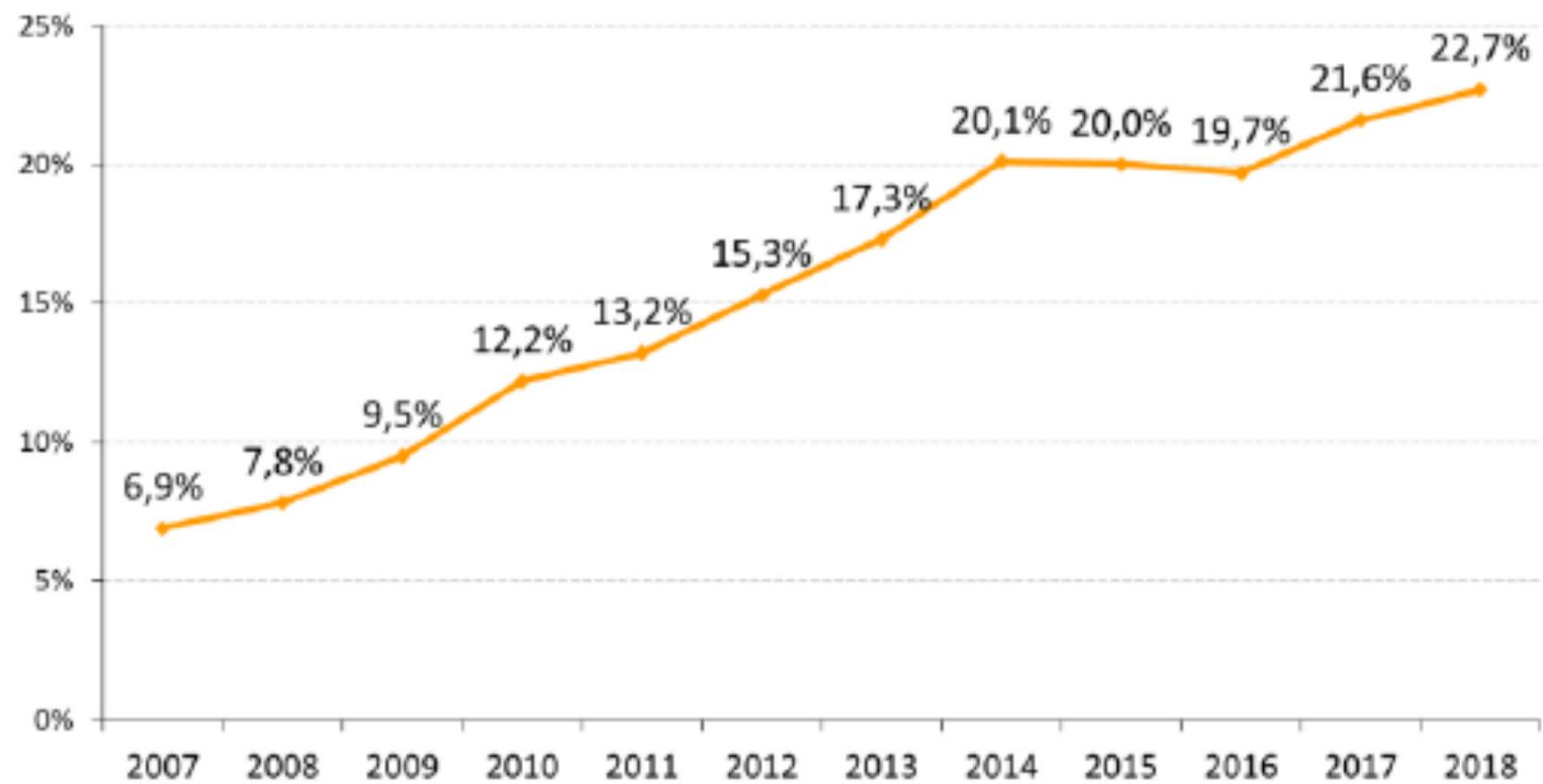
Giunta Regionale

Direzione Generale Cura della persona,
Salute e Welfare

LA NASCITA IN EMILIA-ROMAGNA

**16° Rapporto sui dati del
Certificato di Assistenza al Parto
(CedAP) – Anno 2018**

Ricorso a epidurale



Analgesia epidurale e rischio di parto operativo (vaginale e taglio cesareo); parti con travaglio e feto singolo		
	OR (IC95%)	ORa* (IC95%)
parto spontaneo vaginale (<i>rif.</i>)	1	1
parto operativo vaginale	2,37 (2,12-2,65)	1,82 (1,62-2,05)
parto spontaneo vaginale (<i>rif.</i>)	1	1
taglio cesareo	2,23 (2,04-2,43)	1,77 (1,62-1,95)

*OR aggiustato per età, parità, cittadinanza, scolarità, IMC pregravidico, servizio prevalentemente utilizzato in gravidanza, nato con macrosomia (>4000 g)

Approfondimento II – Analgesia epidurale in travaglio e classi di Robson

Stefania Fieni⁷, Enrica Perrone¹, Debora Formisano², Alice Ferretti⁷, Tiziana Frusca⁷, Vittorio Basevi⁶

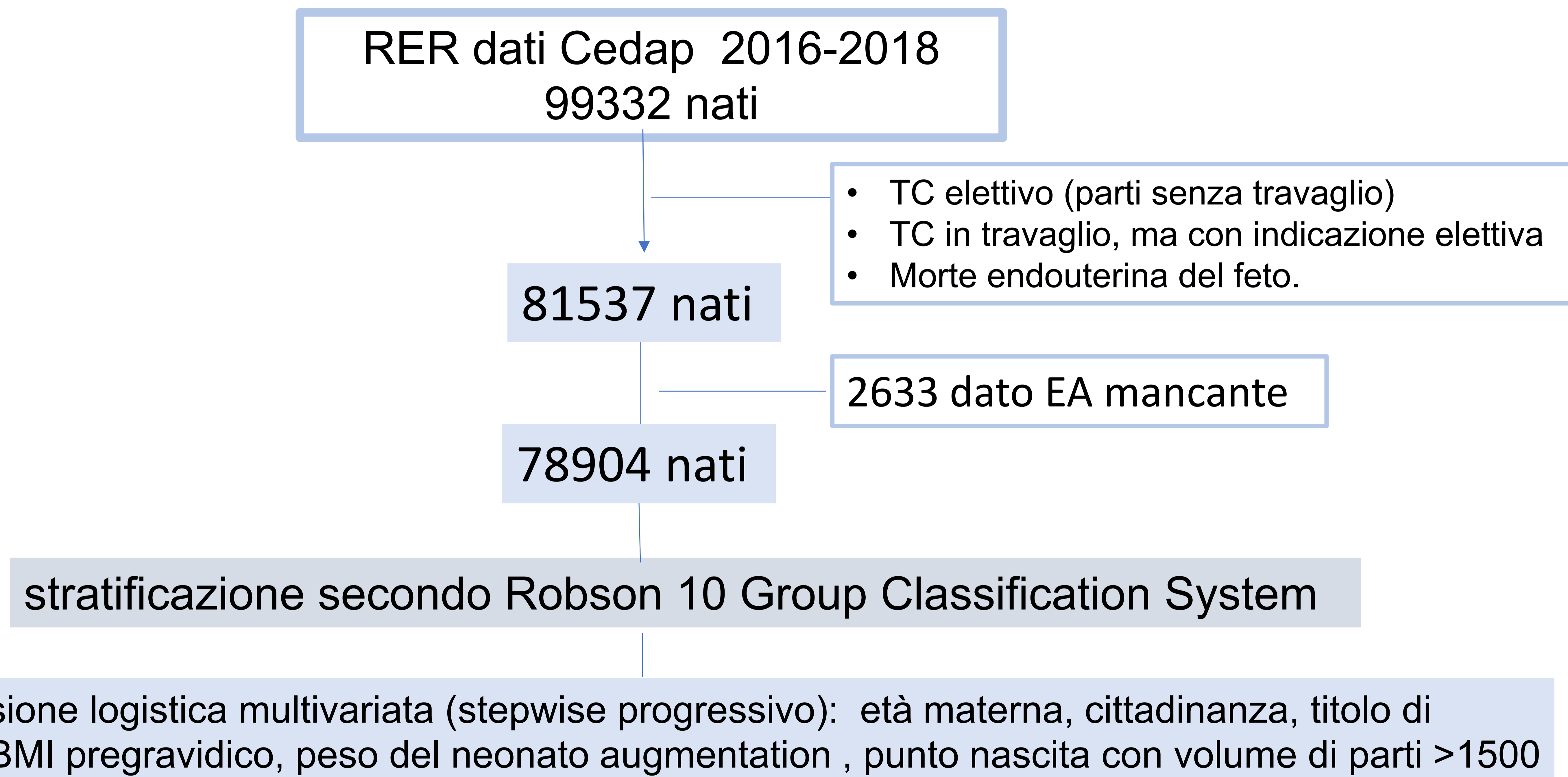


Tabella2: Frequenza di ricorso all'analgesia epidurale in 10 Group Classification System di Robson

Classe di Robson	analgesia epidurale (EA)		Totale
	sì (%)	no (%)	
I - Nullipare, singolo cefalico, ≥ 37 sett., trav spontaneo	7027 (26,72)	19274 (73,28)	26.301
II A - Nullipare, singolo cefalico, ≥ 37 sett., trav indotto	5183 (40,71)	7547 (59,29)	12.730
III - Pluripare (escl pregresso TC), singolo cefalico, ≥ 37 sett., trav spontaneo	2368 (9,30)	23090 (90,70)	25.458
IV A - Pluripare (escl pregresso TC), singolo cefalico, ≥ 37 sett., trav indotto	1058 (15,05)	5970 (84,95)	7.028
V - Pregresso TC, singolo cefalico, ≥ 37 sett.	705 (25,74)	2034 (74,26)	2.739
VI - Nullipare singolo con presentazione podalica	14 (12,61)	97 (87,39)	111
VII - Pluripare singolo con presentazione podalica	11 (10,09)	98 (89,91)	109
VIII - Gravidanze multiple	108 (29,92)	253 (70,08)	361
IX - Singolo presentazione anomala	92 (23,29)	303 (76,71)	395
X - Singolo cefalico, <37 sett.	477 (16,41)	2430 (83,59)	2.907
Totale	17.043	61.096	78.139

12210

PARTO OPERATIVO

Tabella 4: Stima degli OR* del parto vaginale operativo nelle donne con epidurale vs quelle senza epidurale in 10 Group Classification System di Robson

Classi di Robson	OR*	Intervallo di confidenza 95%	
I - Nullipare, singolo cefalico, ≥37 sett., trav spontaneo	1,25	1,12	1,38
II A - Nullipare, singolo cefalico, ≥37 sett., trav indotto	1,33	1,18	1,51
III - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav spontaneo	NS		
IV A - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav indotto	1,85	1,27	2,66
V - Pregresso TC, singolo cefalico, ≥37 sett.	1,41	1,01	1,95
VI - Nullipare singolo con presentazione podalica			
VII - Pluripare singolo con presentazione podalica			
VIII - Gravidanze multiple			
IX - Singolo presentazione anomala			
X - Singolo cefalico, <37 sett.	2,09	1,29	3,29

Epidural versus non-epidural or no analgesia for pain management in labour (Review)

Anim-Somuah M, Smyth RMD, Cyna AM, Cuthbert A

Outcome	Trials	Women	RR	95% CI	NNT
Instrumental delivery	30	9948	1.44	1.29 - 1.60	20

*Odds ratio (OR) aggiustati per età della madre, cittadinanza, titolo di studio, BMI pregravidico, peso del neonato, volume di attività dei punti nascita (≥1500 parti). \$: nelle classi 1 e 3 è stata aggiunta la variabile "parto pilotato" nel modello di aggiustamento. NA: non applicabile (nessuna variabile entra nel modello); NS: non significativo (p>0,05)

PARTO OPERATIVO

Tabella 4: Stima degli OR* del parto vaginale operativo nelle donne con epidurale vs quelle senza epidurale in 10 Group Classification System di Robson

Classi di Robson	OR*	Intervallo di confidenza 95%	
I - Nullipare, singolo cefalico, ≥37 sett., trav spontaneo	1,25	1,12	1,38
II A - Nullipare, singolo cefalico, ≥37 sett., trav indotto	1,33	1,18	1,51
III - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav spontaneo	NS		
IV A - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav indotto	1,85	1,27	2,66
V - Pregresso TC, singolo cefalico, ≥37 sett.	1,41	1,01	1,95
VI - Nullipare singolo con presentazione podalica	NA		
VII - Pluripare singolo con presentazione podalica	NA		
VIII - Gravidanze multiple	NS		
IX - Singolo presentazione anomala	NA		
X - Singolo cefalico, <37 sett.	2,09	1,29	3,29

*Odds ratio (OR) aggiustati per età della madre, cittadinanza, titolo di studio, BMI pregravidico, peso del neonato, volume di attività dei punti nascita (≥1500 parti). \$: nelle classi 1 e 3 è stata aggiunta la variabile "parto pilotato" nel modello di aggiustamento. NA: non applicabile (nessuna variabile entra nel modello); NS: non significativo (p>0,05)

TAGLIO CESAREO

Tabella 3: Stima degli OR* del taglio cesareo nelle donne con epidurale vs quelle senza epidurale in 10 Group Classification System di Robson

Classi di Robson	OR*	Intervallo di confidenza 95%	
I - Nullipare, singolo cefalico, ≥37 sett., trav spontaneo \$	2,08	1,88	2,29
II A - Nullipare, singolo cefalico, ≥37 sett., trav indotto	1,74	1,57	1,91
III - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav spontaneo \$	1,46	1,09	1,92
IV A - Pluripare (escl pregresso TC), singolo cefalico, ≥37 sett., trav indotto	1,98	1,47	2,64
V - Pregresso TC, singolo cefalico, ≥37 sett.	NS		
VI - Nullipare singolo con presentazione podalica	NA		
VII - Pluripare singolo con presentazione podalica	NA		
VIII - Gravidanze multiple	0,37	0,22	0,60
IX - Singolo presentazione anomala	NA		
X - Singolo cefalico, <37 sett.	NS		

*Odds ratio (OR) aggiustati per età della madre, cittadinanza, titolo di studio, BMI pregravidico, peso del neonato, volume di attività dei punti nascita (≥1500 parti). \$: nelle classi 1 e 3 è stata aggiunta la variabile "parto pilotato" nel modello di aggiustamento. NA: non applicabile (nessuna variabile entra nel modello); NS: non significativo (p>0,05)

LIMITI

Bias di selezione
Percentuale% EA

DATI MANCANTI

Dosi EA, qualità EA , indicazioni al TC/PO, protocolli ostetrici, protocolli anestesiológicos, storia ostetrica, caratteristiche CTG, dinamica del travaglio, caratteristiche del punto nascita



Epidural analgesia associated with low-dose oxytocin augmentation increases cesarean births: A critical look at the external validity of randomized trials



Andrew J. Kotaska, MD,^a Michael C. Klein, MD,^b Robert M. Liston, MD^a

1. Only RCTs included if they reported labor outcomes and management protocols (8/19)
2. Labor management was then compared with current obstetric practice

Table II Randomized trials comparing EA with opioid analgesia: Labor protocols and CS rates

Study	AML	IUPC Goal (MVU)	Oxytocin augmentation		Oxytocin protocol			C/S rate		P =
			O (%)	E (%)	Start dose (mU/min)	Increase (mU/min)	Interval (min)	O (%)	E (%)	
Bofill et al ³	Yes	200-250	82	69	6	6	q30	6	10	NS
Clark et al ⁴	Yes	<240	72	75	6	6	q15	14	10	NS
Howell et al ^{9*}	Yes	N/A	55	62	2.5	2.5 then 5	q30	9	7	NS
Loughnan et al ⁵	Yes	†	57	61	4	4	q15	13	12	NS
Ramin et al ^{6,‡}	Yes	200-250	23	32	6	6	q40	4	9	.002
Ramin (ITT)	Yes	200-250	N/A	N/A	6	6	q40	6	6	NS
Sharma et al ⁷	Yes	200-250	15 [‡]	33 [‡]	6	6	q40	5	4	NS
Sharma et al ⁸	Yes	200-250	45	34	6	6	q40	9	7	NS
Thorp et al ¹⁶	No	N/A	27	58	1	1	q30-45	2	25	<.05

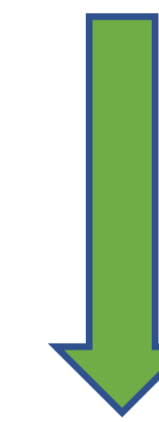
MVU, Montevideo units.

* Data from University Hospital of North Staffordshire.

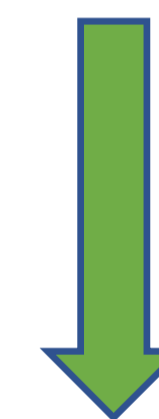
† Clinical goal: 7 contractions in 15 min.

‡ Protocol compliant subjects only.

STUDIO DI POPOLAZIONE 2016-2018 Cedap



STUDIO RETROSPETTIVO per TESI DI
SPECIALIZZAZIONE- CLASSIFICAZIONE TC IN
TRAVAGLIO EA vs noEA
(on going)



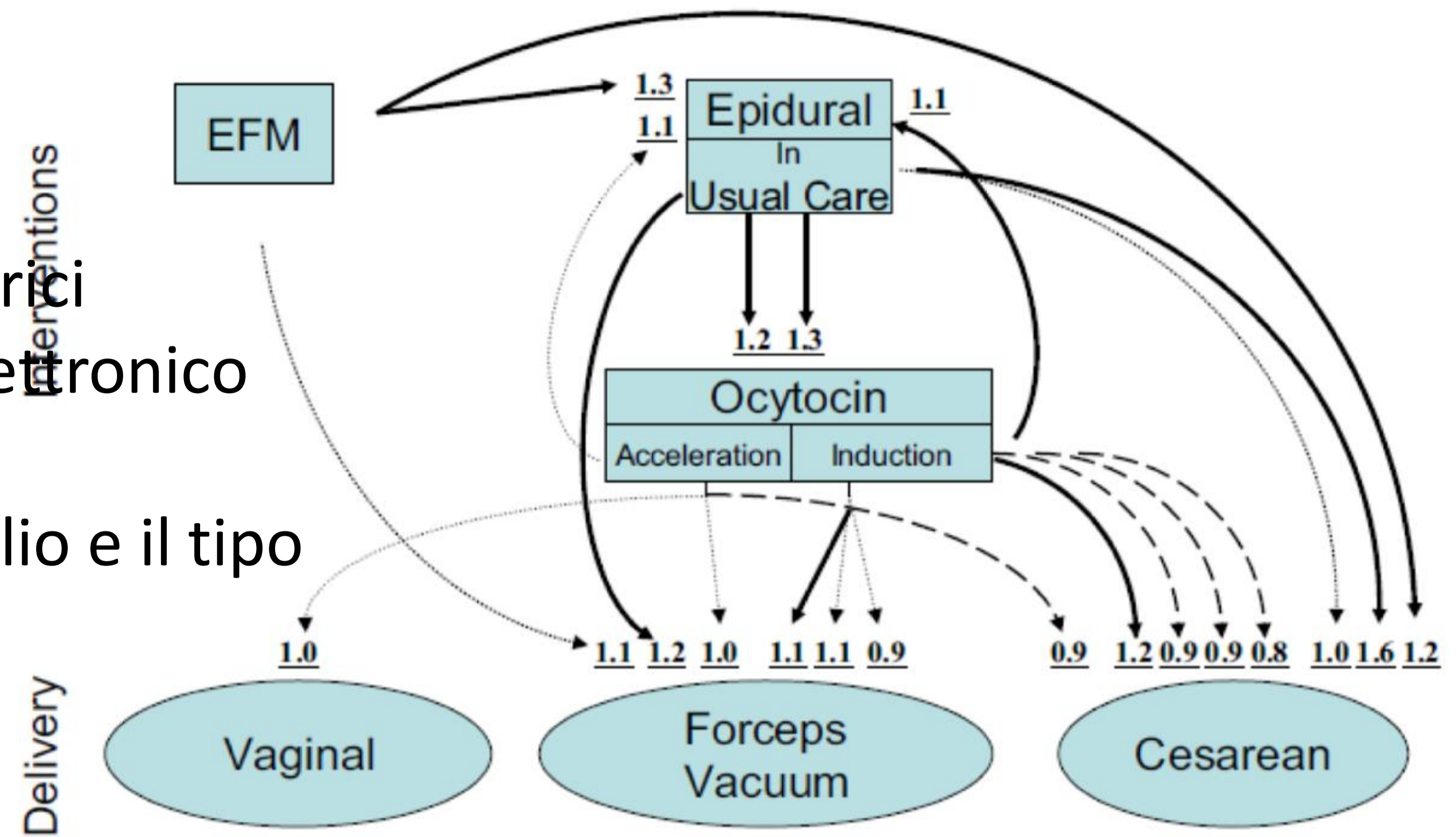
STUDIO PROSPETTICO

Grazie per l'attenzione

Interrelations Between Four Antepartum Obstetric Interventions and Cesarean Delivery in Women at Low Risk: A Systematic Review and Modeling of the Cascade of Interventions

Michd Rossignol, MD, MSc, FRCPC, Nils Chaillet, PhD, Faiza Boughrassa, MD, MSc, and Jean-Marie Moutquin, MD, MSc, FRCSC

relazioni tra quattro interventi ostetrici intrapartum: monitoraggio fetale elettronico (EFM), analgesia epidurale, l'induzione/accelerazione del travaglio e il tipo di parto (TC PO) meta-analisi 2000-2012



—→ Increase: RR > 1.0 and p < 0.05
 - - - → Decrease: RR < 1.0 and p < 0.05
 → No effect: 0.9 < RR < 1.1 and p > 0.05