



SERVIZIO SANITARIO REGIONALE
EMILIA-ROMAGNA

 Regione Emilia-Romagna

Convegno regionale

LA NASCITA IN EMILIA-ROMAGNA

*Presentazione del 15° Rapporto sui dati
del Certificato di Assistenza al Parto (CedAP)
Anno 2017*

29 Novembre 2018

Ore 9,00- 13,30



Bologna

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

L'analgesia farmacologica in travaglio di parto

S. Fieni

Fieni@ao.pr.it

COMUNICATO ALLA PRESIDENZA IL 21 MAGGIO 2008

DISEGNO DI LEGGE

Norme per la promozione del parto indolore

Art. 1.

(Finalità)

1. La presente legge ha lo scopo di promuovere:

a) il parto analgesia e la riduzione del ricorso al parto cesareo;

2005

21 studies
6664 women

**Epidural versus non-epidural or no analgesia in labour
(Review)**

Anim-Somuah M, Smyth RMD, Howell CJ



Cochrane Database of Systematic Reviews

2011

38 studies
9658 women

**Epidural versus non-epidural or no analgesia in labour
(Review)**

Anim-Somuah M, Smyth RMD, Jones L



Cochrane Database of Systematic Reviews

40 studies
11000 women

2018

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

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

40 studies
11000 women

2018

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	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	

40 studies
11000 women



Cochrane
Library

Cochrane Database of Systematic Reviews

2018

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	

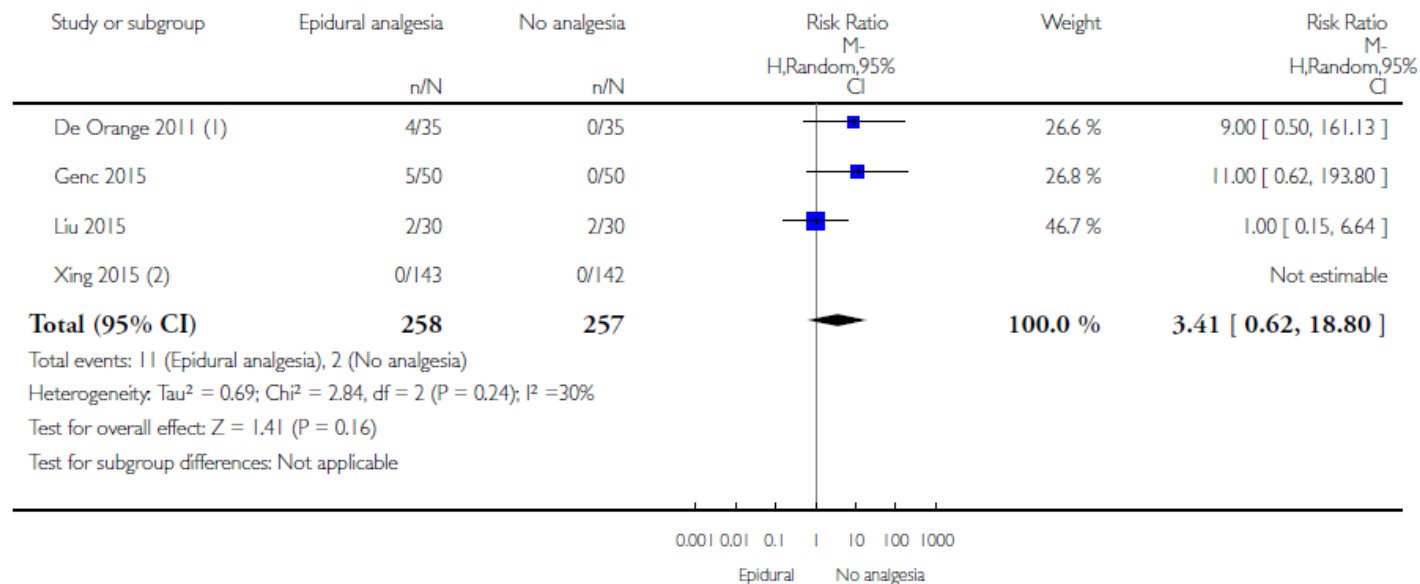
Epidurale e parto operativo

Analysis 2.8. Comparison 2 Epidural versus placebo/no treatment, Outcome 8 Instrumental delivery.

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

Comparison: 2 Epidural versus placebo/no treatment

Outcome: 8 Instrumental delivery



(1) both groups received continuous support during delivery provided by a doula or trained lay person, and swiss exercise balls, massage, and music therapy.

(2) Combined spinal epidural

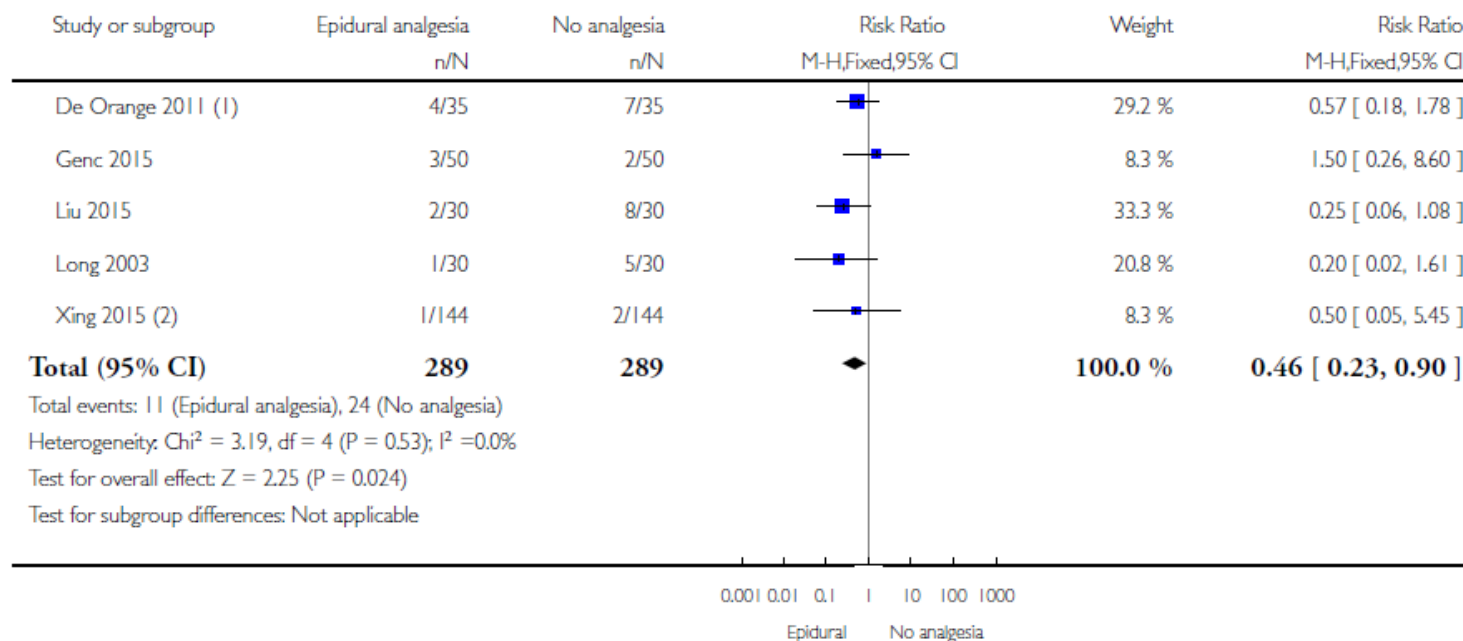
Epidurale e taglio cesareo

Analysis 2.9. Comparison 2 Epidural versus placebo/no treatment, Outcome 9 Caesarean section.

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

Comparison: 2 Epidural versus placebo/no treatment

Outcome: 9 Caesarean section



(1) both groups received continuous support during delivery provided by a doula or trained lay person, and swiss exercise balls, massage, and music therapy.

(2) Combined spinal epidural

RCTs

1. Trials cannot be placebo controlled
2. RCTs have compared EA and systemic opioid analgesia
3. Impossible to blind
4. Decision to proceed with operative delivery is a subjective clinical one made by the obstetrician
5. In the context of an RCT, labour progress and dystocia are likely to have been very well managed, including rigorous application of active management of labour protocols specifying the use of oxytocin augmentation for failure to progress, especially after initiation of epidural analgesia

Impact Studies

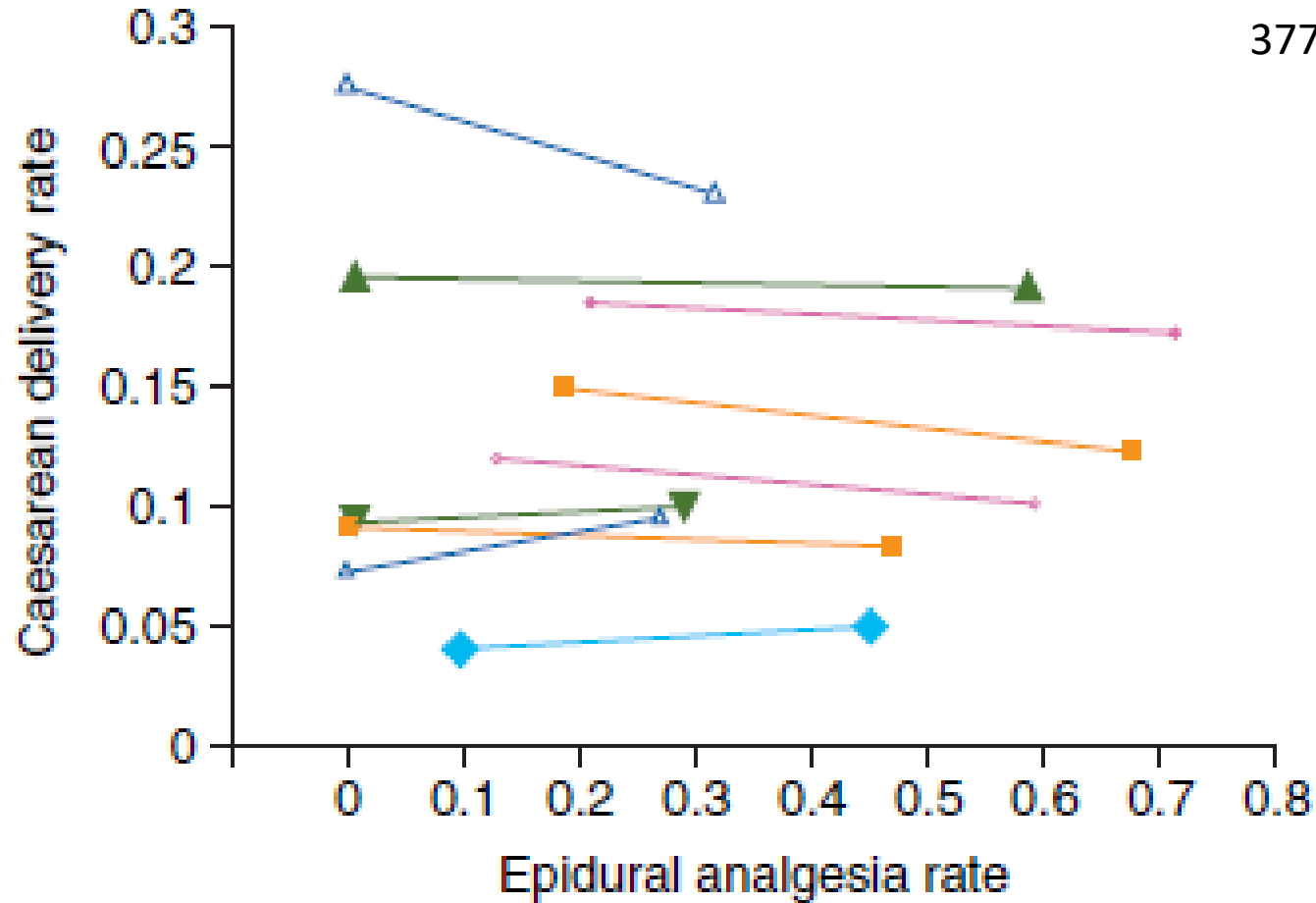
1. Valutare un outcome ostetrico prima/dopo un evento sentinella (es. EA)
2. I risultati di questi studi sono generalizzabili alla popolazione generale perché le pazienti non hanno scelto di partecipare allo studio
3. Il gruppo di controllo è costituito dal gruppo prima dell'evento
4. LIMITE: assumere che non ci siano stati altri cambiamenti nel periodo post

Impact Studies

1. Patients excluded from epidural group may belong to a low risk group, who progress easily through labor
2. EA was offered after diagnosis of dystocia, implying the risk of reverse causation
3. Risk factor for dysfunctional labor pre-disposes the women to select labor epidural.

Impact studies

9 studies
37753



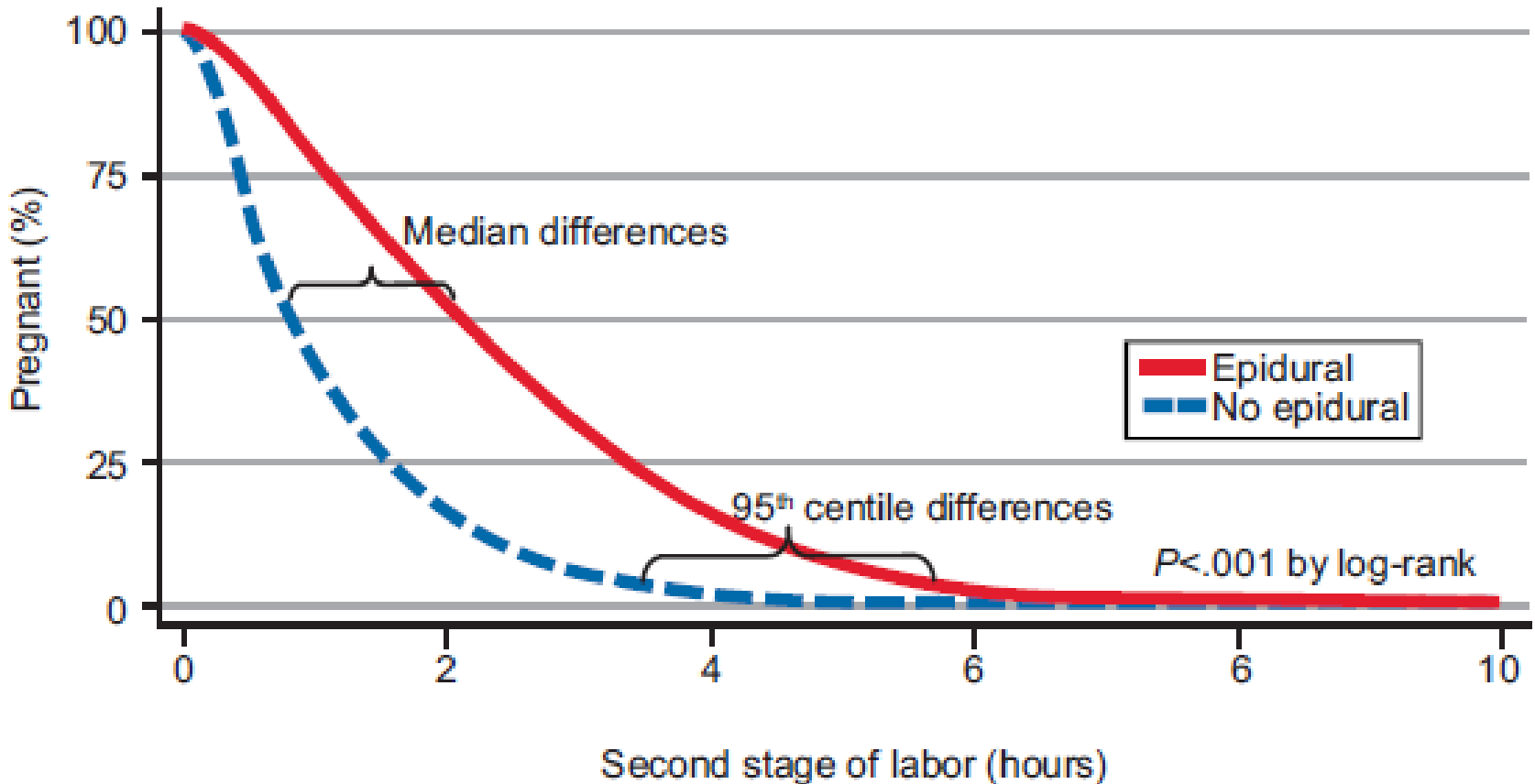
Segal S, Su M, Gilbert P. The effect of a rapid change in availability of epidural analgesia on the cesarean delivery rate: a meta-analysis. *Am J Obstet Gynecol* 2000; 183: 974–8

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,

retrospective cohort study of
42,268 women



95th percentile nulliparous 197 minutes (no EA) and 336 minutes with EA ($P < .001$), a difference of 2 hours and 19 minutes

(Obstet Gynecol 2014;123:527–35)

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}

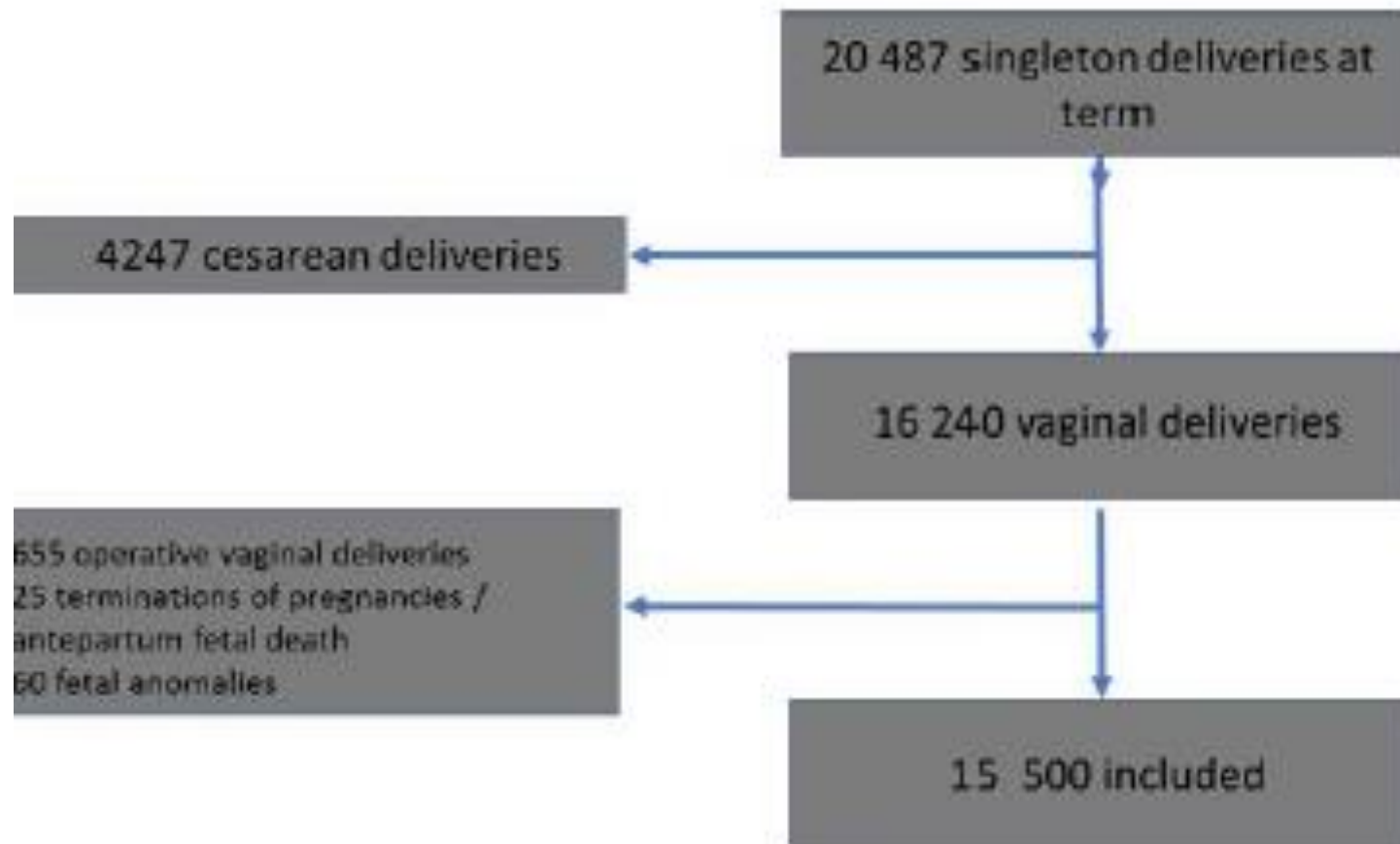
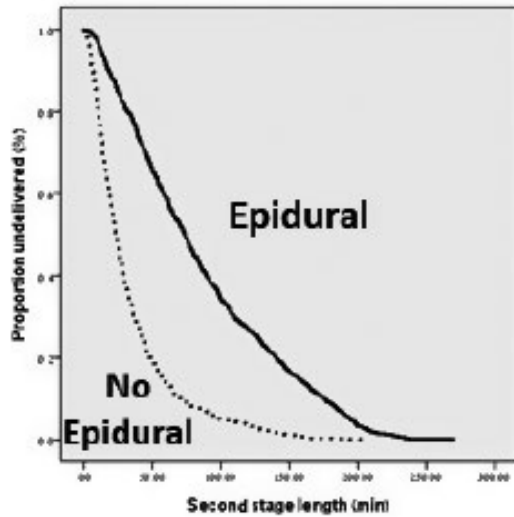


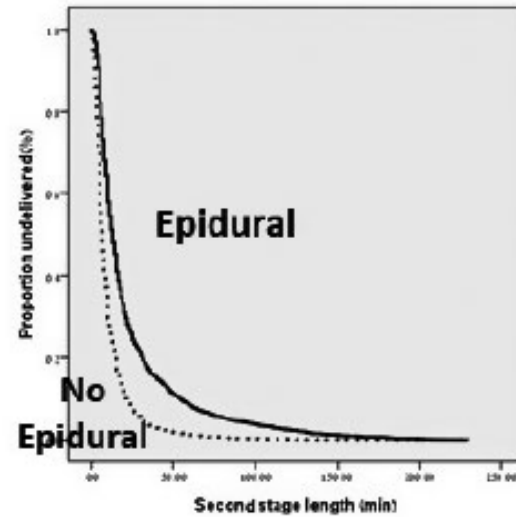
TABLE 1 Demographic and obstetrical characteristics of nulliparous and multiparous women with and without epidural analgesia, Rabin Medical Center, 2012-2014

Parameter	Group 1 Nulliparous with epidural N = 4212 Median [range] or n (%)	Group 2 Nulliparous without epidural N = 891 Median [range] or n (%)	Group 3 Multiparous with epidural N = 6329 Median [range] or n (%)	Group 4 Multiparous without epidural N = 4068 Median [range] or n (%)
Maternal age ^a	28 [19-47]	28 [18-42]	32 [19-48]	32 [19-48]
Body mass index ^b	21.85 [14.42-45]	21.45 [14.33-34.60]	23.03 [15.42-58.27]	22.91 [14.33-58.27]
Any hypertensive disorder	154 (3.7)	78 (8.8)	165 (2.6)	229 (5.6)
Any diabetes	246 (5.8)	45 (5.1)	411 (6.5)	157 (3.9)
Spontaneous onset of delivery	2673 (64.2)	715 (80.9)	4433 (71.0)	3570 (88.6)
Artificial rupture of membranes	1684 (41.3)	207 (25.7)	3126 (52.2)	1286 (36.5)
Meconium	766 (18.8)	119 (14.3)	807 (13.5)	599 (16.9)
Oxytocin augmentation	3100 (73.6)	182 (20.4)	3126 (49.4)	382 (9.4)
Other analgesia				
Patient controlled analgesia	0 (0)	43 (4.8)	0 (0)	27 (0.7)
Pethidine	0 (0)	52 (5.8)	0 (0)	170 (4.2)
Gestational age at delivery (wk)	39.8 [37.0-42.4]	39.5 [37.0-42.8]	39.7 [37.0-42.8]	39.7 [37.0-42.7]
Second-stage length (min)	107 [0-297]	27 [0-204]	13 [0-260]	7 [0-220]
Prolonged second stage (by Friedman) ^c	865 (20.5)	61 (6.8)	286 (4.5)	65 (1.6)
Birthweight (g)	3234 [1700-4642]	3216 [1917-4614]	3338 [1906-5090]	3280 [1564-5090]
Mode of delivery—normal vaginal delivery	3559 (84.5)	844 (94.7)	6157 (97.3)	4041 (99.3)
Mode of delivery—operative vaginal delivery	653 (15.5)	47 (5.3)	172 (2.7)	27 (0.6)
Obstetric anal sphincter injury	31 (0.7)	14 (1.6)	16 (0.3)	10 (0.2)
Large for gestational age ^d	191 (4.6)	22 (2.5)	594 (9.4)	281 (6.9)

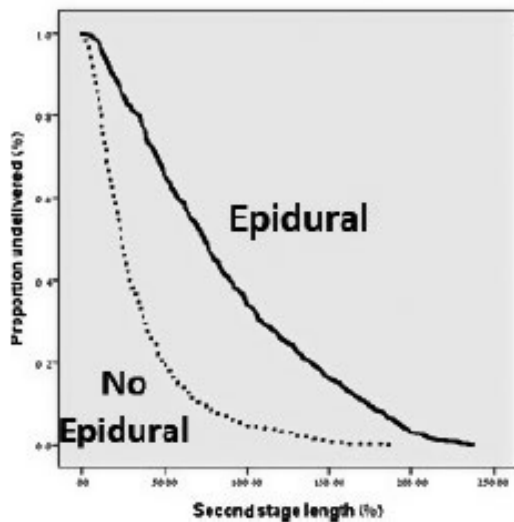
**Nulliparous, Any onset,
No Oxytocin**



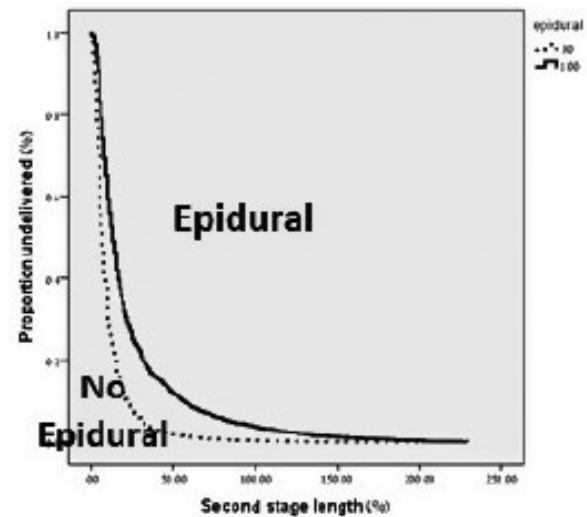
**Multiparous, Any onset,
No Oxytocin**



**Nulliparous, Spontaneous onset,
No Oxytocin**



**Multiparous, Spontaneous onset,
No Oxytocin**





Giunta Regionale
Direzione Generale Cura della persona,
Salute e Welfare

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Fattori associati al ricorso a epidurale

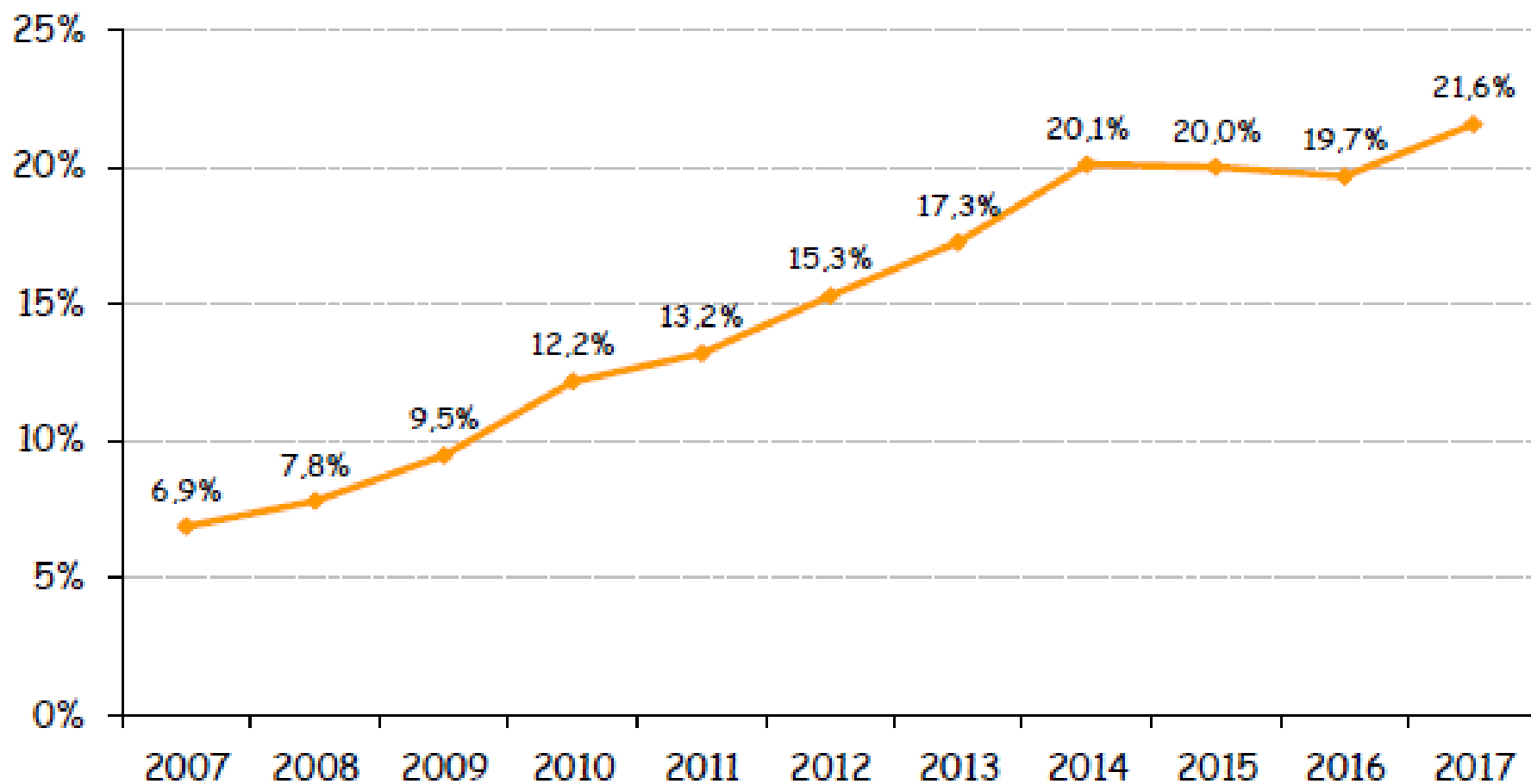
ODDS RATIO aggiustati*	Utilizzo epidurale (solo parti con travaglio)	
	OR adj	IC 95%
Precedenti parti	<i>multipare</i>	1 (rif.)
	<i>nullipare</i>	3,08 2,87 – 3,30
Cittadinanza	<i>italiana</i>	1 (rif.)
	<i>straniera</i>	0,53 0,48 - 0,57
Scolarità	<i>alta</i>	1 (rif.)
	<i>media</i>	0,86 0,80 – 0,92
	<i>bassa</i>	0,73 0,66 – 0,80
Età	<i><25 anni</i>	0,82 0,73 – 0,92
	<i>25-34 anni</i>	1 (rif.)
	<i>>=35 anni</i>	1,25 1,17 – 1,34
IMC materno	<i>sottopeso (grave e non)</i>	0,94 0,84 – 1,05
	<i>normopeso</i>	1 (rif.)
	<i>sovrappeso</i>	1,06 0,97 - 1,15
	<i>obesa</i>	1,21 1,08 – 1,36
Servizio utilizzato in gravidanza	<i>pubblico</i>	1 (rif.)
	<i>privato</i>	1,32 1,23 – 1,41

* OR aggiustati per parità, cittadinanza, scolarità, età, IMC della madre e servizio utilizzato

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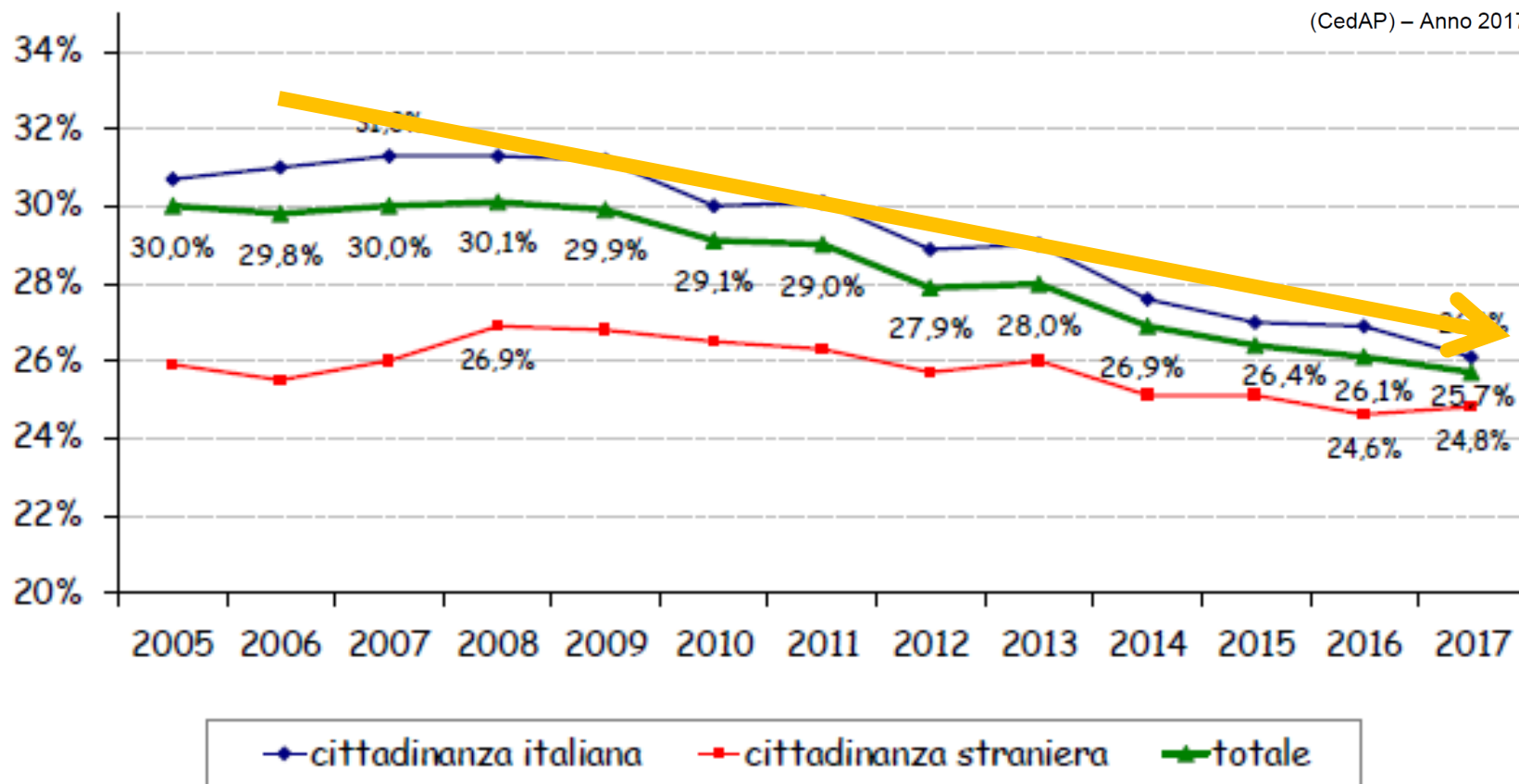
Ricorso a epidurale



LA NASCITA IN EMILIA ROMAGNA

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 (CedAP) – Anno 2017

Tasso di parti cesarei



Analisi Dati CedAP

Parti in ER con travaglio (spontaneo o indotto) - fonte CEDAP

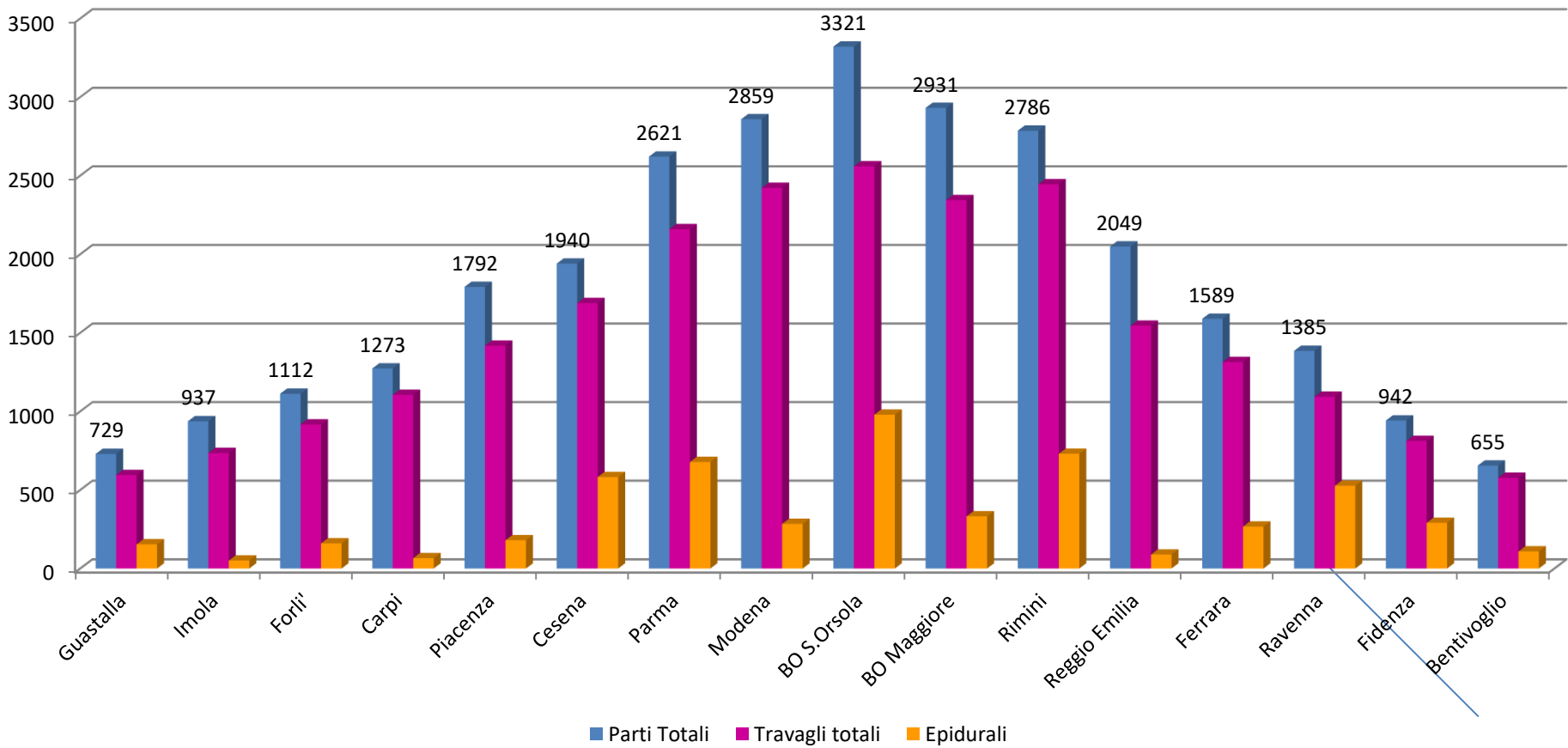
2016	Epidurale		
	sì	no	Totale
TC	937	2084	3021
Totale parti	5559	22688	28247
% cesarei	16,9%	9,2%	10,7%

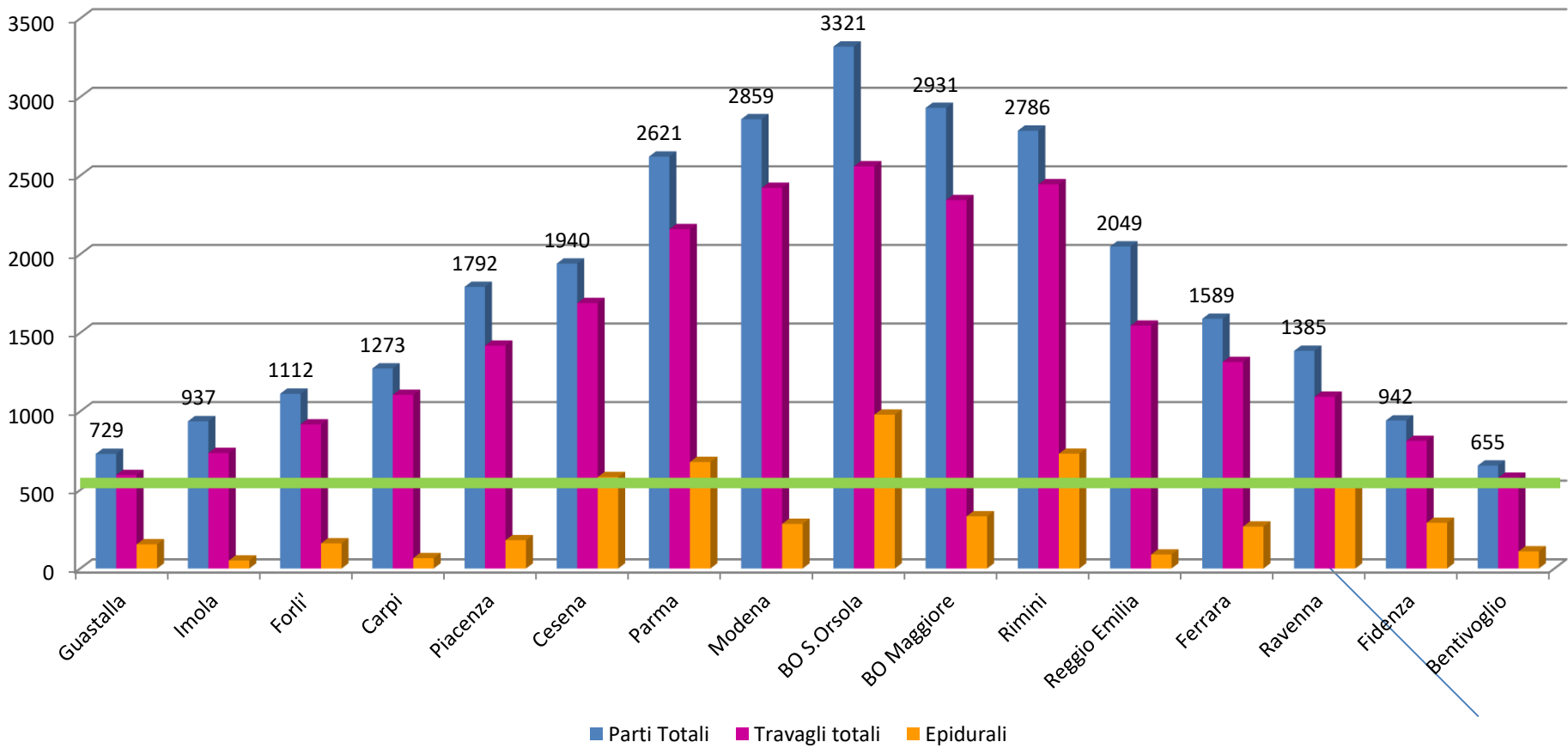
2015	Epidurale		
	sì	no	Totale
TC	893	2209	3102
Totale parti	5816	23208	29024
% cesarei	15,4%	9,5%	10,7%

Analgesia epidurale e rischio di parto operativo (vaginale e taglio cesareo); parti con travaglio e feto singolo

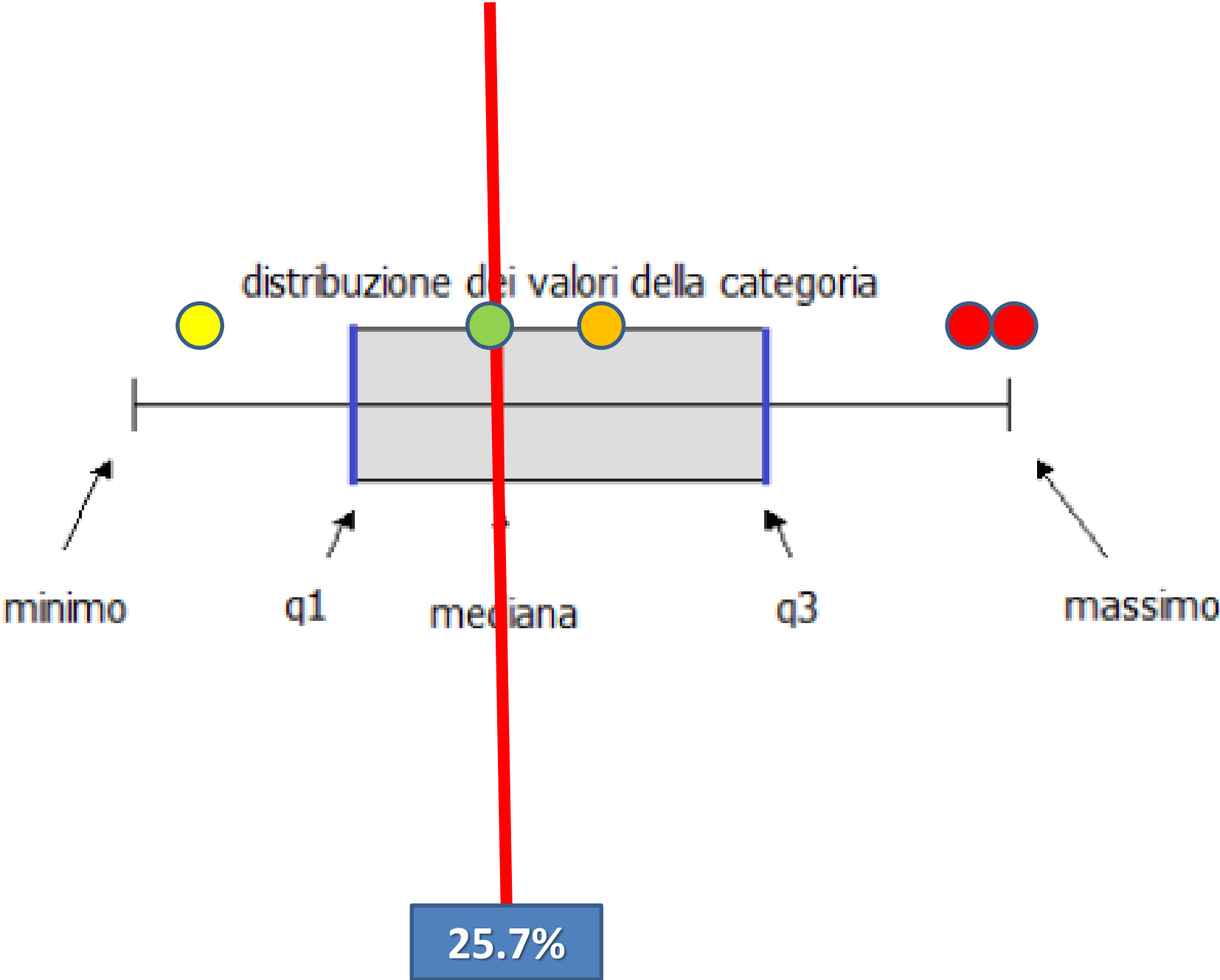
	OR (IC95%)	ORa* (IC95%)
parto spontaneo vaginale (<i>rif.</i>)	1	1
parto operativo vaginale	2,37 (2,12-2,65)	1,82 (1,62-2,05)
parto spontaneo vaginale (<i>rif.</i>)	1	1
taglio cesareo	2,23 (2,04-2,43)	1,77 (1,62-1,95)

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

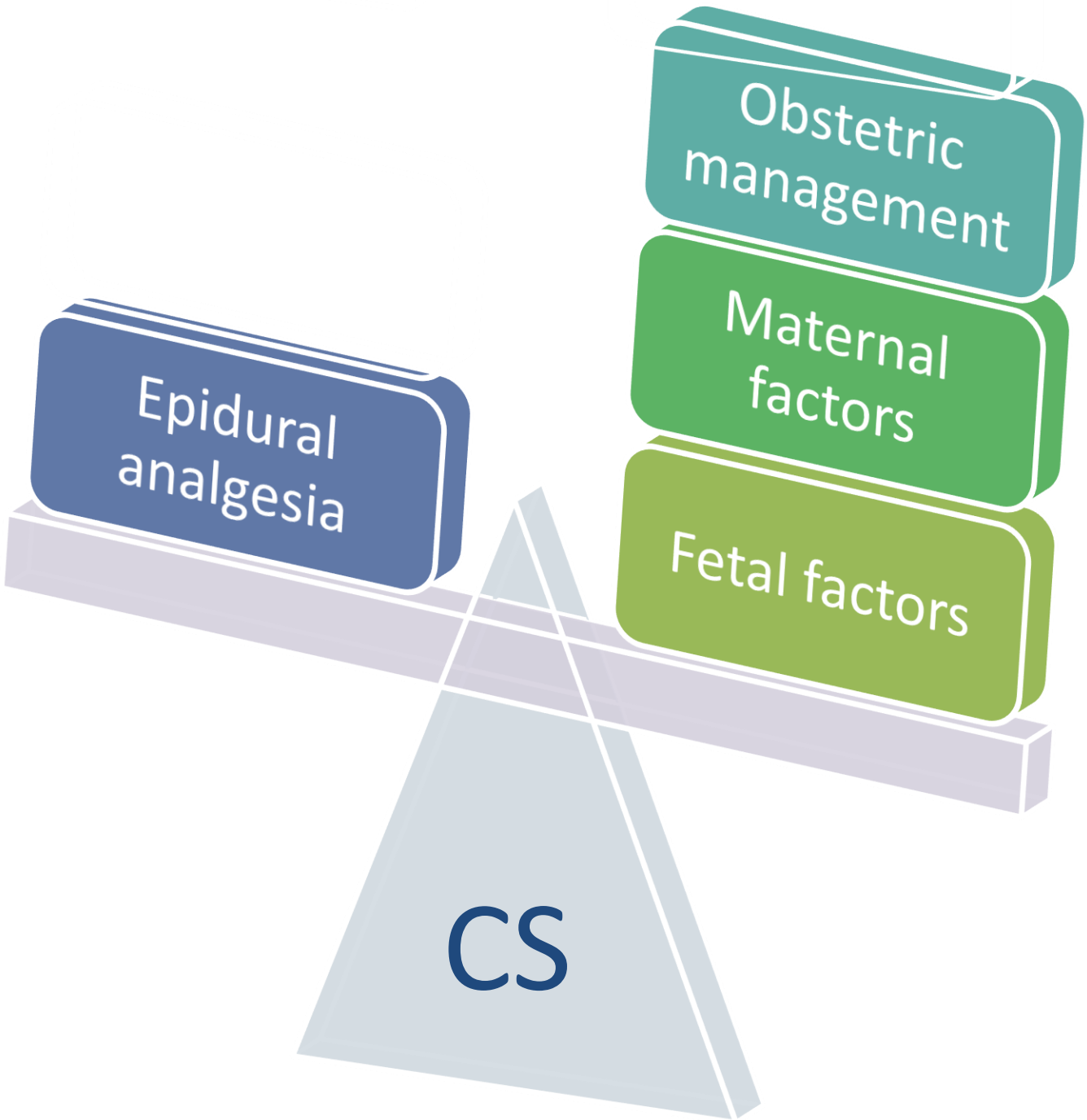




Tasso di cesarei Regione Emilia Romagna









Impact of epidural analgesia on cesarean and operative vaginal delivery rates classified by the Ten Groups Classification System

207 525

M. Lucovnik,^a I. Blajic,^b I. Verdenik,^a T. Mirkovic,^b T. Stopar Pintaric^{b,c}

Table 2 Maternal and obstetric characteristics of women according to the Ten Group Classification System (TGCS) for women with, and without, epidural analgesia

TGCS groups	Number of deliveries		Maternal age		Maternal BMI		Neonatal birth weight		OP presentation	
	EA	No EA	EA	No EA	EA	No EA	EA	No EA	EA	No EA
Group 1	9384	59 406	28.8 ± 4.2	27.8 ± 4.4*	22.6 ± 3.7	22.8 ± 3.8*	3405.6 ± 405.0	3378.7 ± 416.4*	582 (6.2%)	2317 (3.9%)*
Group 2a	3085	17 678	29.1 ± 4.5	28.4 ± 4.8*	23.6 ± 4.4	24.1 ± 4.9*	3479.2 ± 482.7	3411.1 ± 497.8*	191 (6.2%)	760 (4.3%)*
Group 3	3739	62 769	31.7 ± 3.9	31.0 ± 4.4*	23.3 ± 4.0	23.6 ± 4.2*	3531.6 ± 425.5	3499.1 ± 430.5*	172 (4.6%)	1884 (3.0%)*
Group 4a	1568	16 324	31.9 ± 4.1	31.6 ± 4.5	24.1 ± 4.6	25.0 ± 5.1*	3591.8 ± 444.2	3535.7 ± 488.1*	66 (4.2%)	490 (3.0%)*
Group 5a	360	4055	31.59 ± 3.8	31.4 ± 4.4	24.3 ± 4.5	24.3 ± 4.7	3523.2 ± 422.0	3425.1 ± 444.9*	26 (7.2%)	162 (4.0%)*
Group 5b	106	6221	31.7 ± 3.9	31.9 ± 4.3	25.0 ± 5.1	25.4 ± 5.3	3650.0 ± 452.7	3470.1 ± 458.1*	6 (5.7%)	131 (2.1%)
Group 6a	101	2033	28.5 ± 4.2	28.6 ± 4.5	22.0 ± 3.0	22.6 ± 3.9	3077.8 ± 450.9	2825.2 ± 776.0*	/	/
Group 6b	23	2790	28.8 ± 4.6	28.9 ± 4.6	22.3 ± 2.4	23.1 ± 4.3	3232.0 ± 483.2	3088.4 ± 669.1	/	/
Group 7a	27	1082	31.4 ± 2.8	31.6 ± 4.7	23.5 ± 3.6	23.3 ± 4.4	3099.8 ± 404.3	2841.9 ± 887.6	/	/
Group 7b	11	1252	30.0 ± 4.8	31.9 ± 4.3	23.7 ± 4.9	23.9 ± 4.7	2993.2 ± 858.4	3148.9 ± 735.2	/	/
Group 8a	65	1860	30.1 ± 4.5	31.0 ± 4.6	23.1 ± 4.7	23.6 ± 4.4*	2388.9 ± 439.3	2130.5 ± 632.5*	2 (3.1%)	56 (3.0%)
Group 8b	70	1675	31.0 ± 4.4	31.5 ± 4.7	22.7 ± 4.0	24.1 ± 4.6	2561.0 ± 441.8	2406.6 ± 534.0*	2 (2.9%)	28 (1.7%)
Group 9	9	1242	31.3 ± 1.2	31.9 ± 5.7	21.3 ± 0.6	24.1 ± 4.6	3146.7 ± 263.5	2535.4 ± 987.6	/	/
Group 10a	420	7442	30.3 ± 4.5	29.9 ± 5.1	22.9 ± 3.8	23.3 ± 4.4	2684.0 ± 436.6	2429.4 ± 680.8*	17 (4.1%)	201 (2.7%)*
Group 10b	93	2253	30.1 ± 45.0	30.7 ± 5.2	23.7 ± 4.3	24.5 ± 5.2	2430.7 ± 561.3	2042.4 ± 787.7*	2 (2.2%)	29 (1.3%)

Values are mean ± SD. TGCS: Ten Group Classification System; OP: occipito-posterior; EA: epidural analgesia; BMI: body mass index; Data are presented as mean ± standard deviation for maternal age, BMI and neonatal birth weight, and as number (N) and rates (%) for OP presentation, cesarean delivery; * presents significant ($P < 0.003$) differences between the groups with vs. without EA (t-test used to compare continuous variables and Chi-square test for categorical variable).



Impact of epidural analgesia on cesarean and operative vaginal delivery rates classified by the Ten Groups Classification System

207 525

M. Lucovnik,^a I. Blajic,^b I. Verdenik,^a T. Mirkovic,^b T. Stopar Pintaric^{b,c}

Table 3 Cesarean and assisted vaginal delivery rates, according to the Ten Group Classification System (TGCS), for women with and without epidural analgesia

TGCS groups	CD		AVD	
	EA	No EA	EA	No EA
Group 1	1248 (13.3%)*	6000 (10.1%)	1000 (10.6%)*	2942 (5.0%)
Group 2a	688 (22.3%)*	5710 (32.3%)	366 (11.8%)*	935 (5.3%)
Group 3	86 (2.3%)	1632 (2.6%)	72 (1.9%)*	350 (0.6%)
Group 4a	58 (3.7%)*	2873 (17.6%)	51 (3.2%)*	140 (0.9%)
Group 5a	110 (30.6%)*	1995 (49.2%)	21 (5.8%)*	122 (3.0%)
Group 5b	46 (43.4%)*	5916 (95.1%)	6 (5.7%)*	19 (0.3%)



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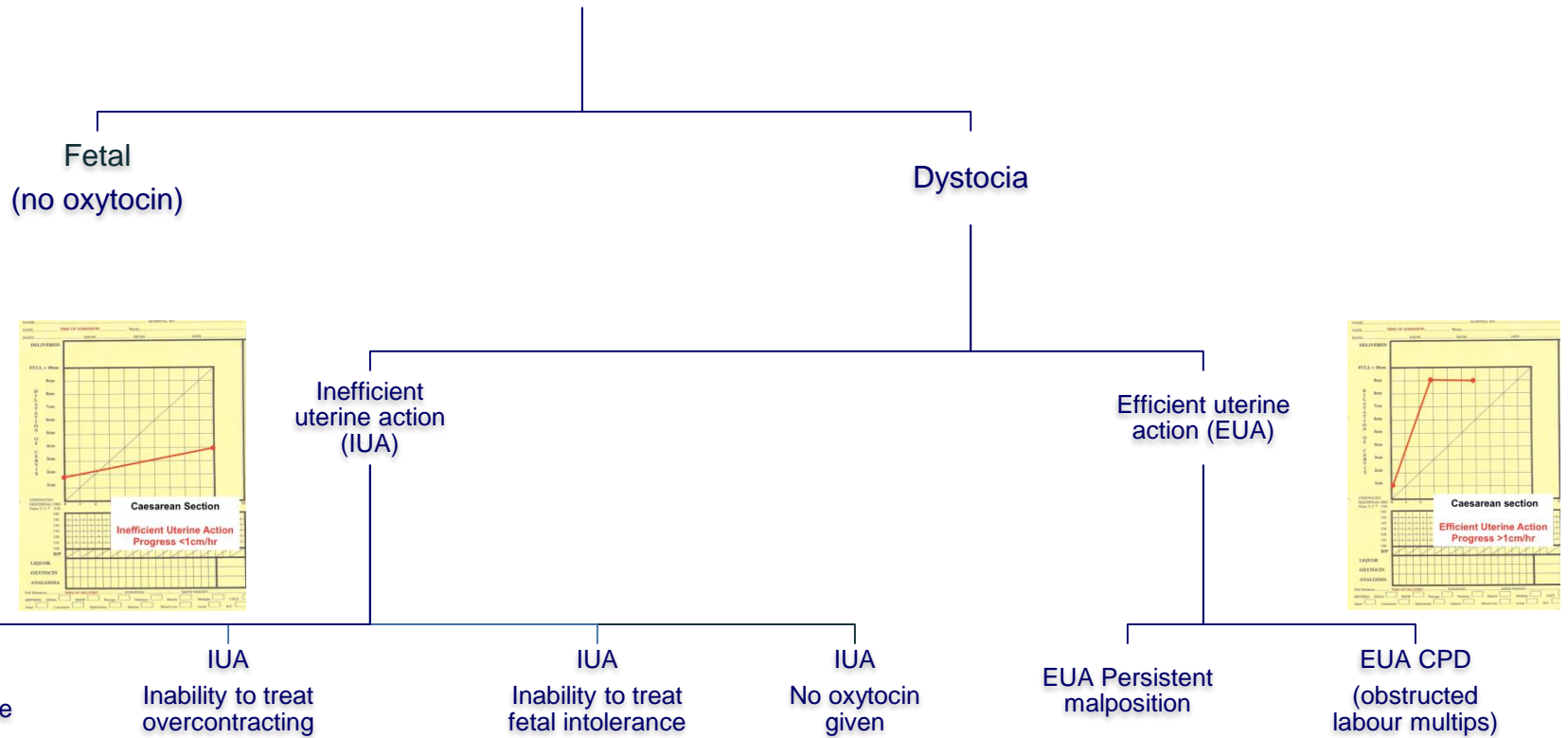
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Classification of CS after spontaneous or induced labour



Variables

- Diagnosis of labour
- Fetal monitoring
- Assessment of progress
- ARM and Oxytocin regimen
- Epidural
- One to one care

Grazie per l'attenzione