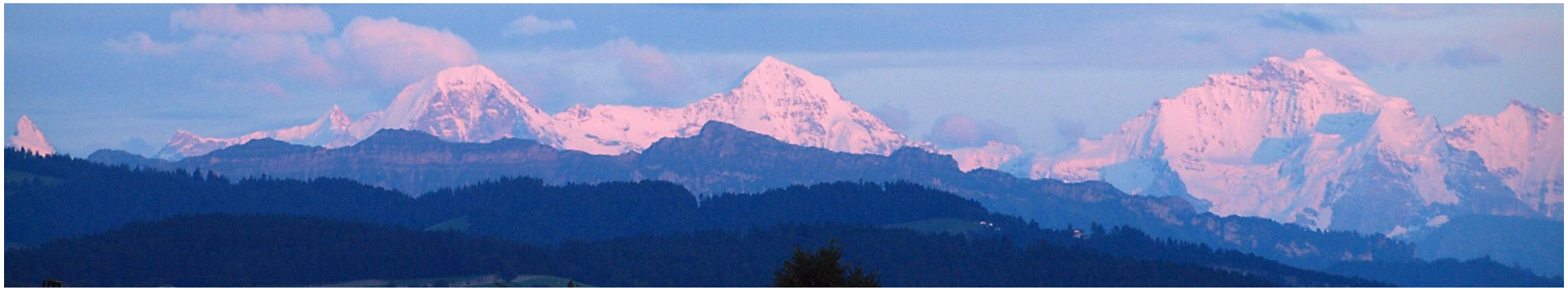

RemiPCA SAFE Network©

10 Years

of Quality Control Data

Dr. med. Andrea Anna Melber
Fachärztin Anästhesiologie, DEAA
RemiPCA SAFE Network Operator


1996 Remifentanil

1999 Case Report for Labour

2009 RemiPCA with QM

2012 RemiPCA SAFE Network

2019 Network data published

Anaesthesia. 1999 May;54(5):461-5.

Patient-controlled analgesia using remifentanil in the parturient with thrombocytopaenia.

Jones R[1], Pegrum A, Stacey RG.

Author information

1 Kingston Hospital, Kingston Upon Thames, Surrey, UK.

Kick Off for Clinical Use

- **2008** OAA Belfast
- David Hill, Ulster Hospital
- **1500** Parturients with Remifentanil PCA
- Safe regimen
- No severe complications

Br J Anaesth. 2001 Sep;87(3):415-20.

Patient-controlled analgesia for labour using remifentanil: a feasibility study.

Blair JM[1], Hill DA, Fee JP.

Pilot Project

- First Parturient (with Remi) 11/2008
  - Pharmacologist
  - 2nd Child
  - Previous EDA
  - Bolus **20mcg**
  - 40 Parturients
  - Very successful

«keep it simple & safe»

SIMPLE

Standardised regimen

- low dose bolus (range)
- No adjustment to weight
- No remifentanil background infusion

SAFE

- **Standardised regimen**
- **All applications with quality control**
  - Questionnaire mandatory
  - Website
  - RemiPCA database
- **Feedback to providers**
  - Own data/overall data
  - Annual evaluations
  - Continuous improvement
- **Education & Learning**

DO NO HARM

One loves it or one hates it…

RemiPCA SAFE Network

- **2008** Pilot project - first patient
- **2009** First web based questionnaire
- **2010** 3 Hospitals
- **2011** 10 Hospitals – **1100** cases
- **2012** www.remipca.org & RemiPCA Register©

Remifentanil-PCA 3/2013

Complications

– Cardio-pulmonary arrest

– Respiratory depression

5. Marr R, Hyams J, Bythell V. Cardiac arrest in an obstetric patient using remifentanil patient-controlled analgesia. *Anaesthesia* 2013; doi: 10.1111/anae.12099
6. Kinney MA, Rose CH, Traynor KD, et al. Emergency bedside cesarean delivery: lessons learned in teamwork and patient safety. *BMC Research Notes* 2012; **5**: 412.
7. Pruefer C, Bewlay A. Respiratory arrest with remifentanil patient-controlled analgesia – another case. *Anaesthesia* 2012; **67**: 1044–5.
8. Bonner JC, McClymont W. Respiratory arrest in an obstetric patient using remifentanil patient-controlled analgesia. *Anaesthesia* 2012; **67**: 538–40.

Anaesthesia. 2013 Mar;68(3):231-5. doi: 10.1111/anae.12153. Epub 2013 Jan 7.

Paracetamol 1g po
Codein 60mg po
Entonox
Diamorphine 10mg im
Remifentanil-PCA 40mcg bolus

Anaesthesia 2013 doi: 10.1111/anae.12153

Editorial

Remifentanil for labour analgesia: time to draw breath?

incidents. A system has been established in Switzerland to monitor events relating to remifentanil in labour [33], and it now has data on over 1600 parturients. By expanding such databases to a large multi-national or national level, valuable denominator data could be gathered, and with the National Audit Projects in the UK our speciality has demonstrated the feasibility and benefits of large-scale collaboration [34].

Anaesthesia. 2013 Mar;68(3):231-5. doi: 10.1111/anae.12153. Epub 2013 Jan 7.

Remifentanil for labour analgesia: time to draw breath?

Muchatuta NA, Kinsella SM.

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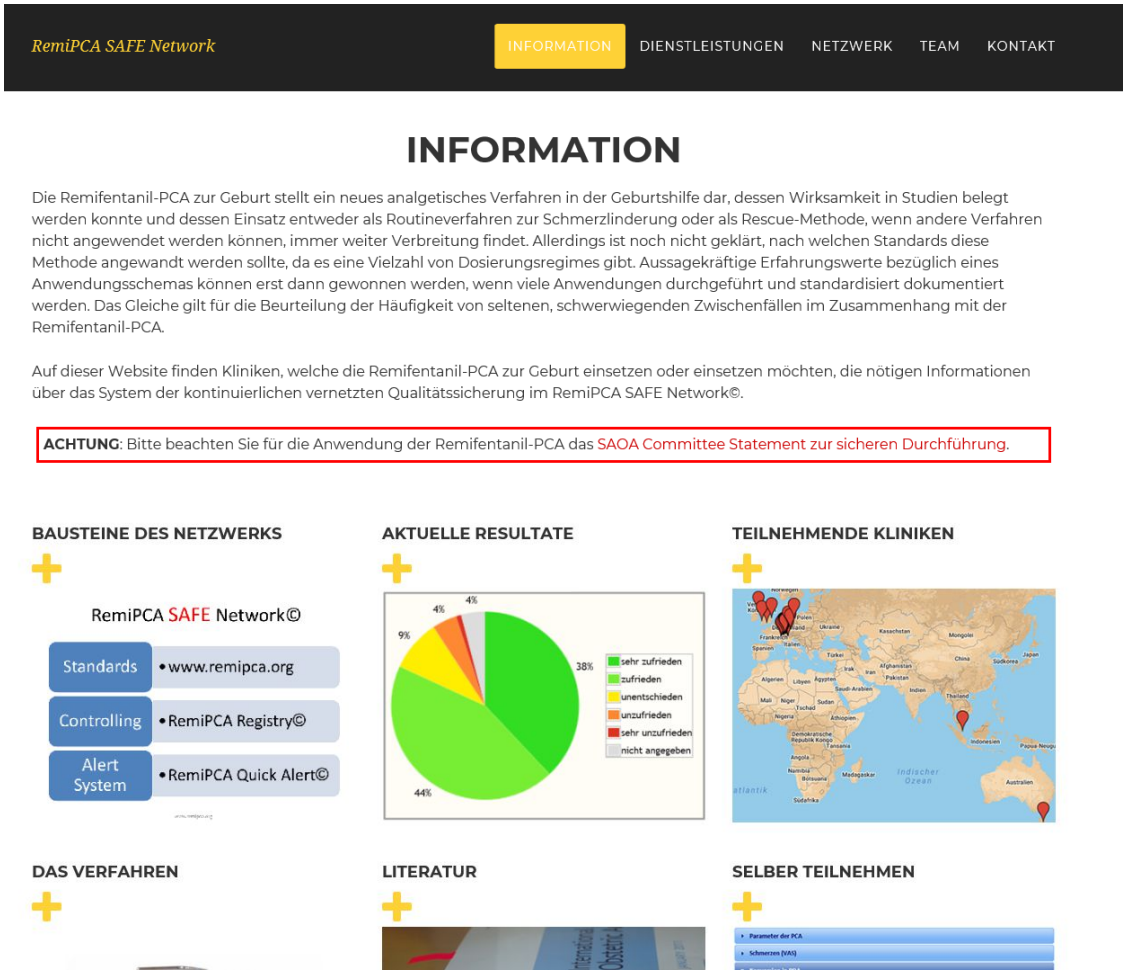
- **2012** www.remipca.org & RemiPCA Register©
- **2013** RemiPCA **SAFE** Network© - **3011** cases
- **2014** RemiPCA **Alert**© & Data Access

RemiPCA SAFE Network©

Standards	• www.remipca.org
Controlling	• RemiPCA Registry©
Alert System	• RemiPCA Quick Alert©

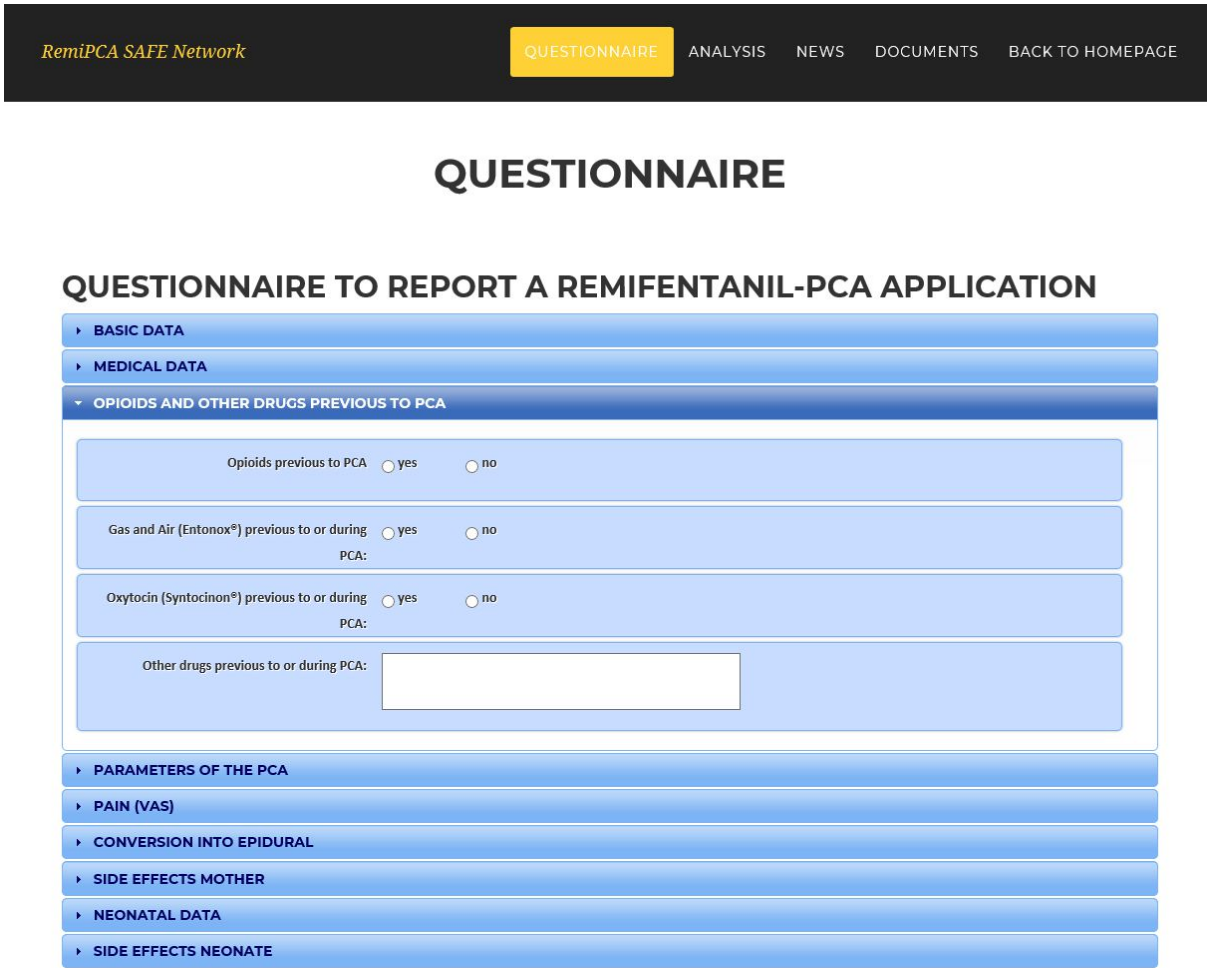
RemiPCA SAFE Network©

- Website www.remipca.org



RemiPCA SAFE Network©

- Questionnaire mandatory



RemiPCA SAFE Network©

- RemiPCA Alert©

Remifentanil-PCA als Schmerzlinderung zur Geburt

de -

Datenbank | Zurück zur Hauptseite | Login

Datensatz erstellen

Dieser Datensatz wurde erfolgreich in die RemiPCA-Datenbank eingefügt. Vielen Dank für Ihre Mitarbeit zur Qualitätssicherung des RemiPCA-Verfahrens!

Aufgrund dieser Eingabe wurde ein RemiPCA Quick Alert© ausgelöst.

RemiPCA Quick Alert geschickt

Parameter	Wert
Klinik:	Privatklinik Bethanien
Nummer im Geburtenbuch:	22
Datum der PCA-Anwendung:	09.01.2014 - 2014-01-09
Schwangerschaftswoche (Woche Tag/7 SSW):	50/1
Primipara:	0
Anzahl Geburten vor dieser:	1
Status nach PCA:	0
Status nach PDA:	1
Status nach Sectio:	0
Pethidingabe vor der PCA:	0
Pethidingabe Anzahl Stunden vor PCA:	
Tramalgabe vor PCA:	1
Tramal Anzahl Stunden vor PCA:	4
Andere Opioide vor PCA:	

Stocki et al 3/2014 *Anesth Analg*

Randomised, controlled, not blinded study, 40 parturients 20 Remi/ 20 EDA
Primary outcome: efficacy for pain reduction and satisfaction
Secondary outcome: safety «maternal apnea»

Bolus upto 60mcg
Lockout down to 1min
Supplemental O_2

- Less effective than EDA but good sati
- Neonate: APGAR, pH, RR no difference
- Mother: apnea despite good oxygen saturation

Summery

- **Thorough monitoring of maternal apnea**
- **«Simple interventions were sufficient to stop maternal apnea»**

Anesth Analg. 2014 Mar;118(3):589-97. doi: 10.1213/ANE.0b013e3182a7cd1b.

A randomized controlled trial of the efficacy and respiratory effects of patient-controlled intravenous remifentanil analgesia and patient-controlled epidural analgesia in laboring women.

Stocki D[1], Matot I, Einav S, Eventov-Friedman S, Ginosar Y, Weiniger CF.

One loves it or one hates it…

M vd Velde, B Carvalho 2/2016 *IJOA*

Literature study (narrative review), 25 controlled studies

Table 2 Studies of remifentanil patient-controlled intravenous analgesia in labor

	Bolus	Lockout (min)	Infusion rate (μg/kg/min)	Maximum hourly dose (μg)	Number of remifentanil patients	Alternative analgesia required
Olufolabi 2000[19]	0.25–0.5 μg/kg	2–5	0	NR	4	NR
Blair 2001[20]	0.25–1.0 μg/kg	2	0.0–0.05	NR	21	38% (epidural)
Volikas 2001[31]	0.5 μg/kg	2	0	NR	9	45% (nitrous oxide); 11% (epidural)
Volmanen 2002[21]	0.2–0.8 μg/kg	1	0	No limit	20	NR
Thurlow 2002[32]	20 μg	3	0	NR	18	55% (nitrous oxide)
Blair 2005[33]	40 μg	2	0	NR	20	90% (nitrous oxide)
Volmanen 2005[26]	0.4 μg/kg	1	0	No limit	20	NR
Evron 2005[34]	20–70 μg	3	0	No limit	43	11% (epidural)
Volikas 2005[22]	0.50 μg/kg	2	0	NR	50	14% (epidural)
Balki 2007[7]	0.25–1 μg/kg	2	0.075–0.1	NR	20	5% (epidural)
Volmanen 2008[40]	0.1 μg/kg	1	0	NR	27	NR
D'Onofrio 2009[24]	0	0	0.025–0.15	NR	205	NR
Douma 2010[35]	40 μg	2	0	1200	52	NR
Douma 2011[41]	40 μg	2	0	1200	10	10% (epidural)
Volmanen 2011[51]	0.4 μg/kg	1	0	NR	45	NR
Ng 2011[36]	25–30 μg	3.75–4.5	0	500	34	>40% (pethidine & nitrous oxide)
Marwah 2012[37]	0.25 μg/kg	2	0.025–0.05	3000 over 4 h	47	6% (epidural)
Ismail 2012[42]	0.1–0.9 μg/kg	1	0	NR	380	NR
Tveit 2012[43]	0.15 μg/kg	2	0	NR	19	10% (epidural)
Stourac 2012[44]	20 (10 μg increases)	3	0	NR	12	NR
Shen 2013[49*]	0.1–0.4 μg/kg	2	0.05–0.2	NR	53	11% (epidural)
Stocki 2013[47]	20–60 μg	2	0	NR	19	NR
Tveit 2013[23]	0.15–1.0 μg/kg	2	0	0	41	5% (epidural)
Lin 2014[46]	0.4 μg/kg	5	0.04–0.05	NR	170	NR
Freeman 2015[48]	30–40 μg	3	0	NR	402	13% (epidural)

*Comparison of bolus only with continuous infusion. NR: not reported.

M vd Velde, B Carvalho 2/2016 *IJOA*

Narrative literature review, 25 controlled studies, level of evidence

Remifentanil

- More effective than nitrous oxide and other opioids
- **Less neonatal side effects than other opioids**
- Less potent than EDA
- **!** Maternal respiratory side effects

Opinion

«Most hospitals are not able to follow necessary standards»

«RemiPCA only when EDA not possible»

Int J Obstet Anesth. 2016 Feb;25:66-74. doi: 10.1016/j.ijoa.2015.12.004. Epub 2015 Dec 21.

Remifentanil for labor analgesia: an evidence-based narrative review.

Van de Velde M[1], Carvalho B[2].

Aaronson et al. 1/2017 *Anesth Analg*

Survey, 126 US Academic Medical Centers: 84 responded (67%)

- **9 maternal and neonatal severe events remembered**
- **! No events in centres which used remifentanil PCA more than 10x per year**
- **! Standardisation and protocols where missing**

Conclusion

Standards are missing

Anesth Analg. 2017 Apr;124(4):1208-1210. doi: 10.1213/ANE.0000000000001622.

A Survey of Intravenous Remifentanil Use for Labor Analgesia at Academic Medical Centers in the United States.

Aaronson J[1], Abramovitz S, Smiley R, Tangel V, Landau R.

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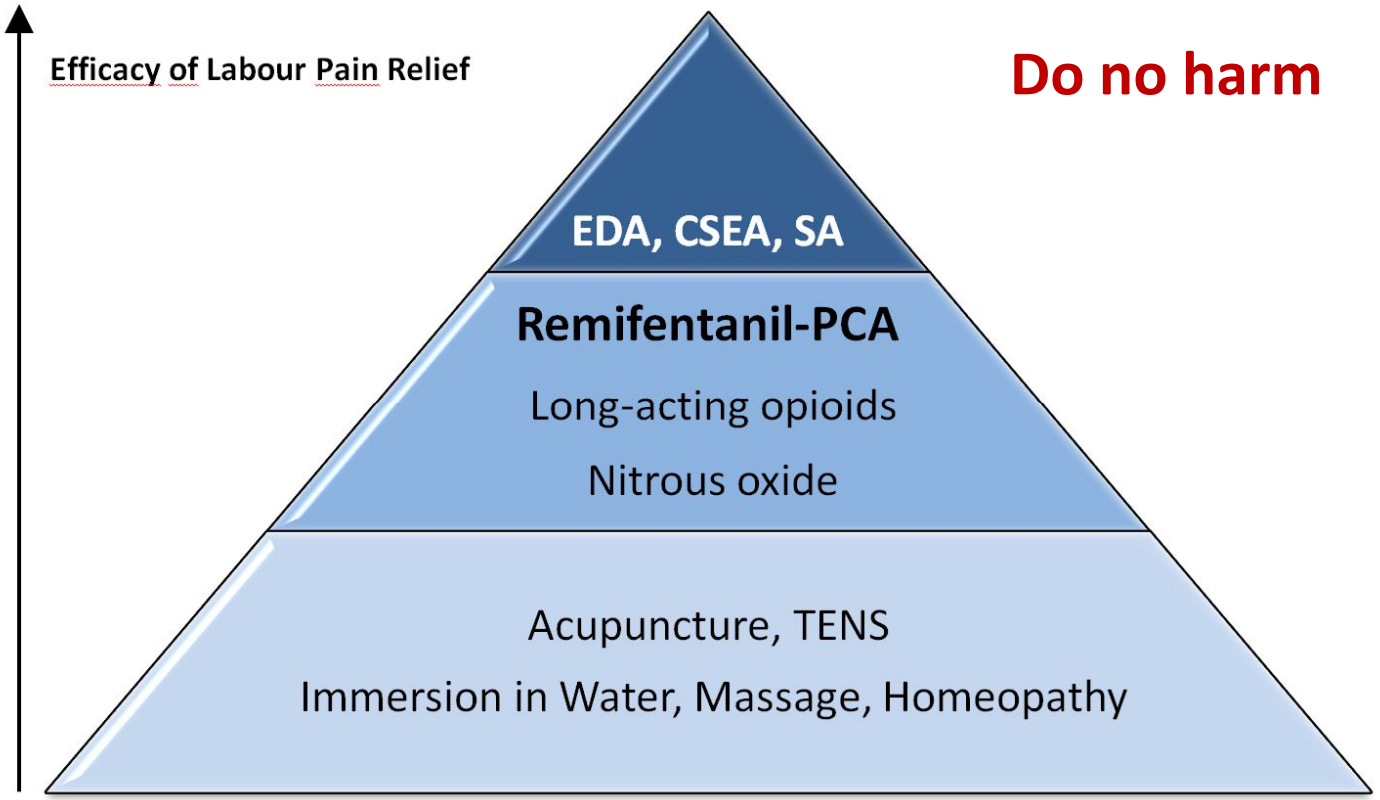
- **2014** RemiPCA **Alert**© & Data Access
- **2015** 31 Hospitals – **5740** cases
- **2016** UK Hospitals: international comparability
- **2017** 39 Hospitals: CH, D, UK, AU, Singapore

Melber A, Sia A 2017 *TACC*



Do no harm

A.A. Melber, A.T.H. Sia, «Do no harm» - Where to place remifentanil for labour analgesia?, Trends in Anaesthesia and Critical Care 17 (2017) 17-20;

Wilson et al 8/2018 *The Lancet*

401 parturturients, 14 UK hospitals where pethidine was routinely used in labour
Randomised to either remifentanil PCA or i.m. pethidine

Remifentanil PCA instead of pethidine

- **halved the proportion of epidural conversion**
  (19% vs 41%)
- **reduced the risk of instrumental deliveries**
  (15% vs 26%)

Lancet. 2018 Aug 25;392(10148):662-672. doi: 10.1016/S0140-6736(18)31613-1. Epub 2018 Aug 13.

Intravenous remifentanil patient-controlled analgesia versus intramuscular pethidine for pain relief in labour (RESPITE): an open-label, multicentre, randomised controlled trial.

Wilson MJA[1], MacArthur C[2], Hewitt CA[2], Handley K[2], Gao F[3], Beeson L[2], Daniels J[4]; RESPITE Trial Collaborative Group.

THE TIMES

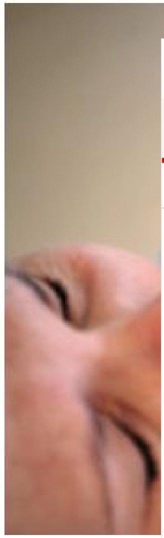
Pain-relief drug halves need for epidural, say scientists

Chris Smyth
August 14 2018, 12:0
The Times

Health

New labour pain drug r… for epidurals – UK stud…

Calls for rethink on childbirth pain relief a… remifentanil works better than pethidine



The Telegraph

News

UK | World | Politics | Science | Education | H

News

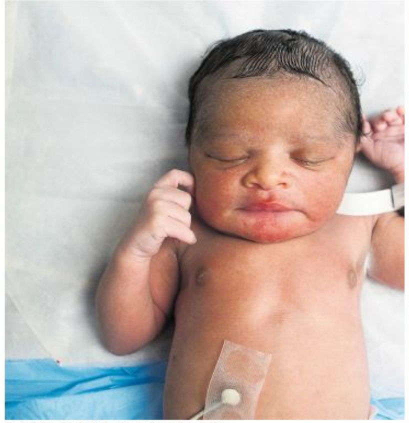
Pain-relieving drug '… epidural during labo…

share

Scientists say remifentanil, which is rarely offered during labour, is more effective at relieving pain than the more commonly-used pethidine CREDIT: PA

.org

Freitag, 31. August 2018 FORSCHUNG UND



Geschafft, dieses Baby hat die Strapazen der Geburt gut überstanden.

Erträgliche Schmerzen be…

Seit einigen Jahren bieten manche Spitäler ein starkes Opioid bei der… dass das Medikament die Zahl der invasiven Schmerzbehandlungen …

Gegenüber anderen Opioiden hat Remifentanil den Vorte… dass es schnell wirkt und schnell wieder abgebaut wird – optimal bei Wehen.

36 Tages-Anzeiger – Montag, 27. August 2018

Wissen

Starkes Opioid gegen Geburtsschmerz

Gebären Um den Schmerz beim Entbinden erträglicher zu machen, kommen heute oft Opioide zum Einsatz. Eine neue Studie stellt die aktuelle Praxis infrage. Künftig könnte das hochpotente Mittel Remifentanil häufig zum Einsatz kommen.

Felix Straumann

Bei Wehenschmerzen können Opioide helfen – oft geht es auch ohne. Foto: Getty Images

Fast die Hälfte der Frauen in der Studie erhielt zur Sicherheit Sauerstoff.

Wilson et al 8/2018 *The Lancet*

«Our results challenge pethidine as routine analgesic in labour»

Lancet. 2018 Aug 25;392(10148):662-672. doi: 10.1016/S0140-6736(18)31613-1. Epub 2018 Aug 13.

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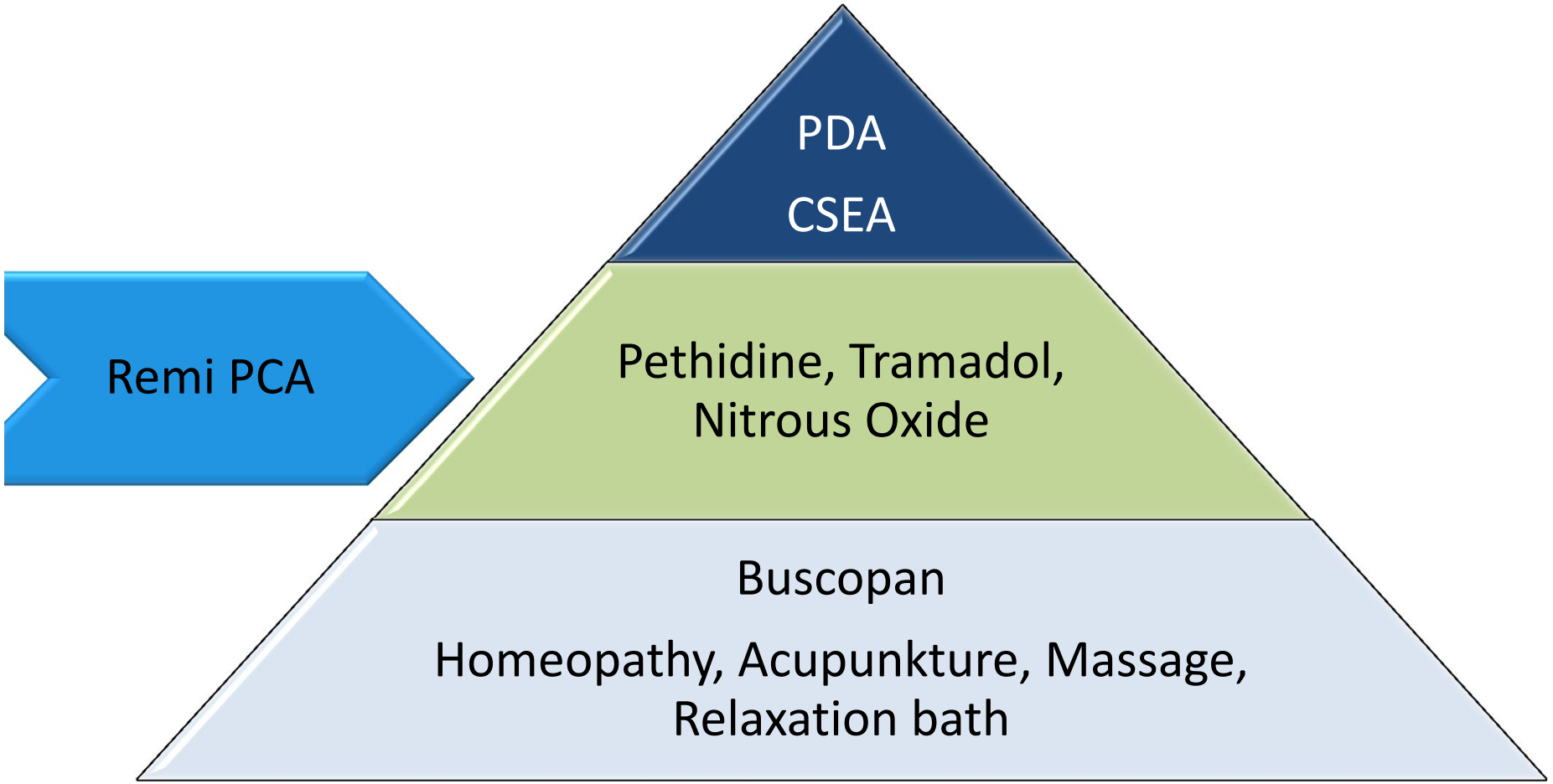
Labour Analgesia (Melber 2012)



Melber 12/2018 *Anaesthesia*

Editorial to RESPITE Trail and Remifentanil PCA

Anaesthesia 2018 doi:10.1111/anae.14536

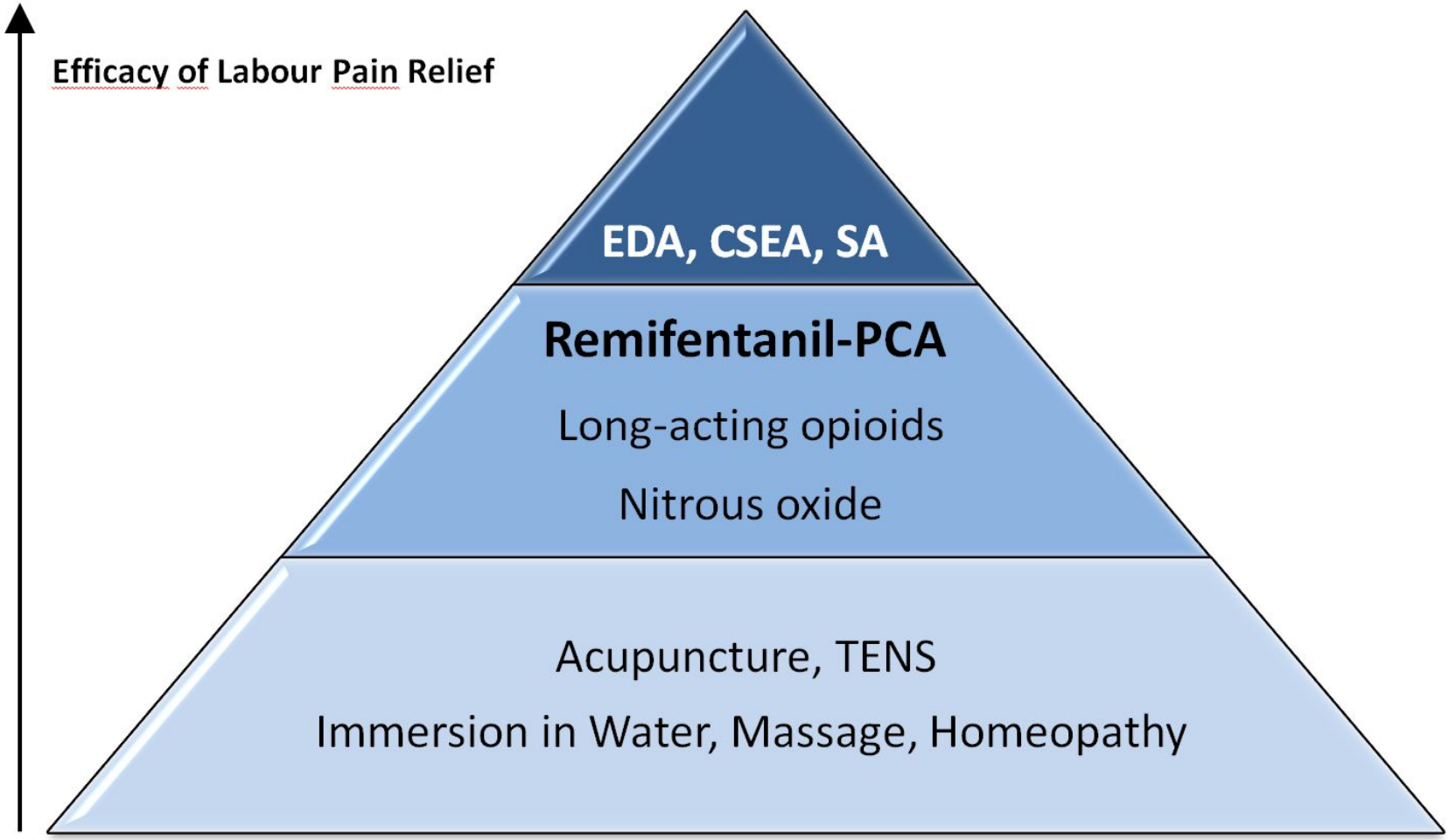
Editorial

Remifentanil patient-controlled analgesia (PCA) in labour – in the eye of the storm

A. A. Melber

Senior Consultant, Department of Anaesthesiology, Spital Münsingen, Insel Gruppe AG, Münsingen, Switzerland

Do no harm



A.A. Melber, A.T.H. Sia, «Do no harm» - Where to place remifentanil for labour analgesia?, Trends in Anaesthesia and Critical Care 17 (2017) 17-20;

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- **2015** 31 Hospitals – **5740** cases
- **2016** UK Hospitals: international comparability
- **2017** 39 Hospitals: CH, D, UK, AU, Singapore
- **2018** Data access with **«easy button»**
- **2019** **10 years network and >10 000 cases**

Murray et al 8/2019 *IJOA*

Retrospective observational study, 2005-2014 Ulster Hospital, >8100 Fälle

- No severe events >**8100** cases
- Conversion rate **9%**
- Bolus dose **40mcg** +/- Entonox

Int J Obstet Anesth. 2019 Aug;39:29-34. doi: 10.1016/j.ijoa.2019.05.012. Epub 2019 Jun 5.

Remifentanil patient-controlled intravenous analgesia during labour: a retrospective observational study of 10 years' experience.

Murray H[1], Hodgkinson P[2], Hughes D[3].

Melber et al 8/2019 *IJOA*

RemiPCA SAFE Network Audit 2010-2015, **5740** cases, 31 hospitals

Int J Obstet Anesth. 2019 Aug;39:12-21. doi: 10.1016/j.ijoa.2018.12.004. Epub 2018 Dec 21.

Remifentanil patient-controlled analgesia in labour: six-year audit of outcome data of the RemiPCA SAFE Network (2010-2015).

Melber AA[1], Jelting Y[2], Huber M[3], Keller D[4], Dullenkopf A[5], Girard T[6], Kranke P[2].

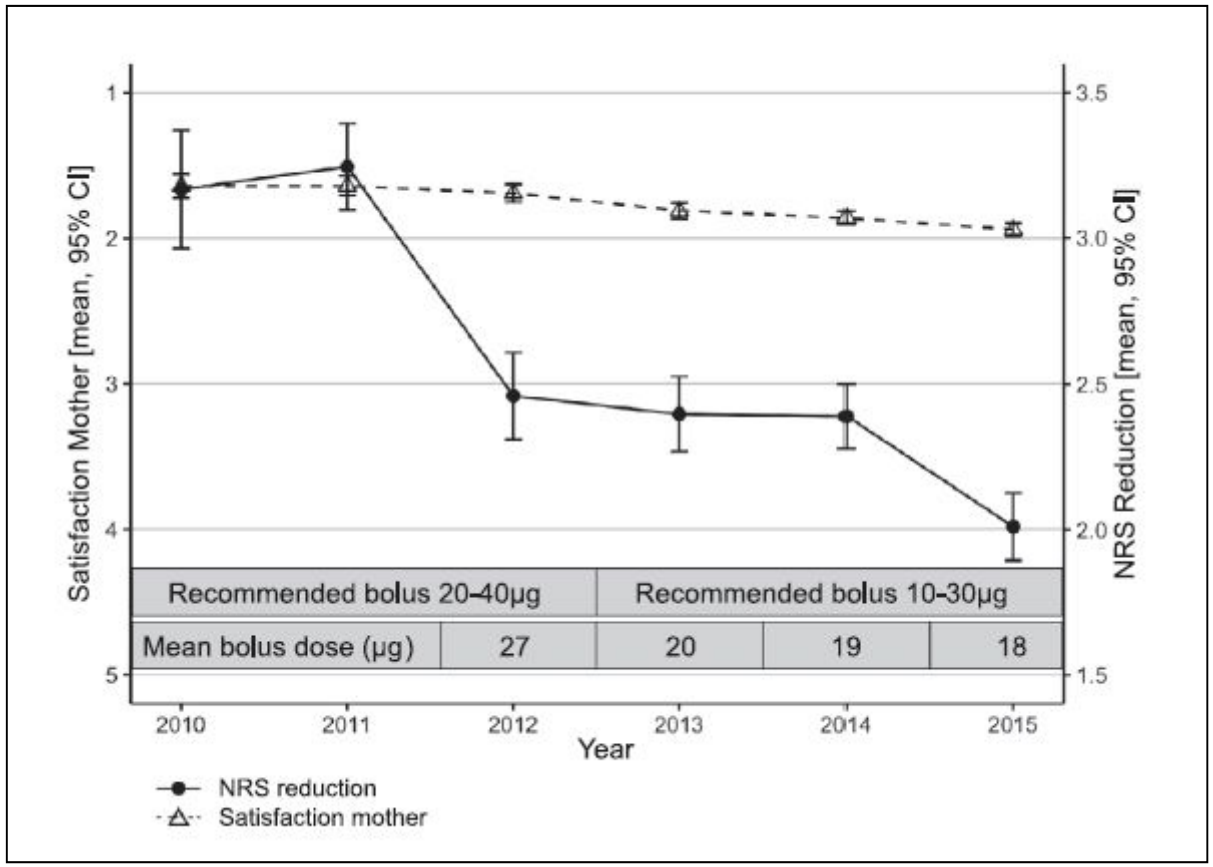
Melber et al 8/2019 *IJOA*

Table 1 Baseline data

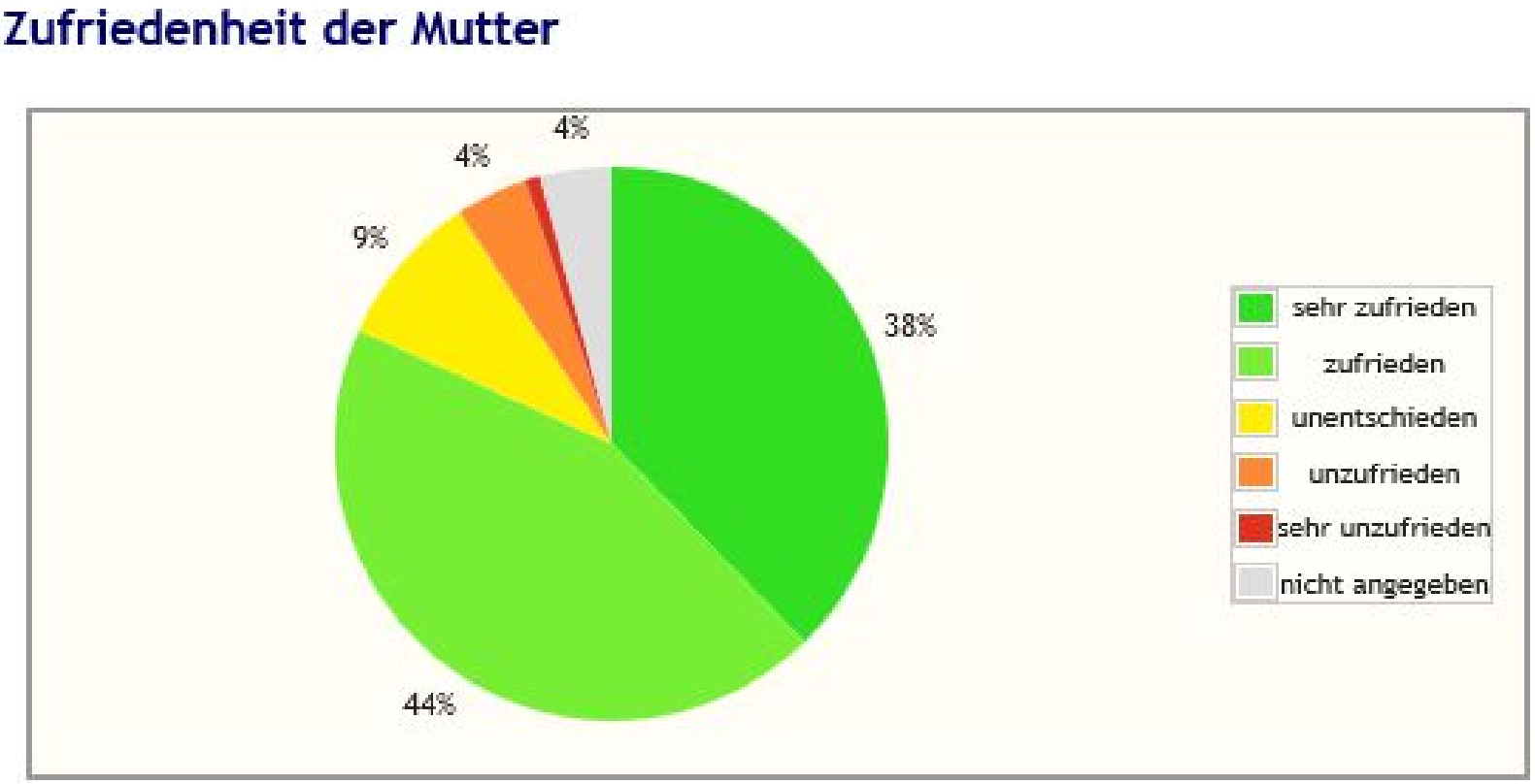
	2010	2011	2012	2013	2014	2015	Total
Participating hospitals (n)	3	10	12	18	23	31	31
Reported RemiPCA cases (n)	438	662	855	1033	1386	1366	5740
Nullipara in % (n)	65.8 (438)	59.4 (662)	60.5 (827)	59.1 (1028)	57.2 (1386)	59.0 (1366)	59.4 (5707)
Conversion rate in % (n)	31.5 (438)	16.8 (662)	16.7 (820)	19.0 (983)	19.3 (1385)	21.3 (1366)	21.0 (5654)
Mode of delivery without conversion to epidural (%)							
(n)	(294)	(517)	(522)	(793)	(1118)	(1075)	(4319)
Spontaneous	84.3	75.4	85.0	82.9	80.1	78.6	80.6
Instrumental	9.9	11.8	9.4	10.1	12.4	13.9	11.8
CS	5.8	12.8	5.6	7.1	7.4	7.4	7.7
Remifentanil bolus dose as mean [µg] (SD, n)	NA	NA	27 (7.9, 410)	20 (6.7, 715)	19 (6.3, 1017)	18 (5.9, 987)	20 (7.1, 3129)
Total amount of remifentanil given per application as mean [µg] (SD, n)	1074 (759, 388)	996 (1167, 653)	1008 (842, 760)	824 (1357, 961)	730 (865, 1293)	727 (908, 1277)	843 (1018, 5332)
Opioid use prior to PCA (%)							
Pethidine (n)	3.2 (435)	2.3 (660)	2.5 (811)	4.3 (959)	4.6 (1316)	4.1 (1295)	3.7 (5476)
Tramadol (n)	10.6 (435)	7.4 (658)	13.1 (770)	14.4 (968)	16.8 (1329)	8.4 (1298)	12.2 (5458)
Other (n)	0 (438)	0.2 (662)	0.6 (855)	0.3 (1033)	0.4 (1386)	1.3 (1366)	0.6 (5740)
Time in hours between use of other opioids to PCA (mean)							
Pethidine (SD, n)	4.2 (1.9, 13)	6.4 (1.6, 15)	7.3 (5.8, 20)	5.0 (6.2, 60)	5.7 (7.5, 73)	6.9 (10.4, 68)	5.9 (7.6, 249)
Tramadol (SD, n)	2.9 (1.6, 43)	5.1 (1.7, 43)	4.7 (5.8, 96)	4.2 (7.6, 158)	4.8 (9.1, 233)	4.4 (4.4, 116)	4.5 (7.0, 689)
Others (SD, n)	-	4.9 (1.6, 7)	3.5 (0.4, 10)	1.2 (3.3, 30)	1.9 (4.1, 26)	3.2 (6.2, 37)	2.5 (4.7, 110)

Numbers are percentages or mean (SD) if not otherwise indicated. NA: not available (exact maximum dose was not included in the first questionnaire); CS: caesarean section; PCA: patient-controlled analgesia; SD: standard deviation.

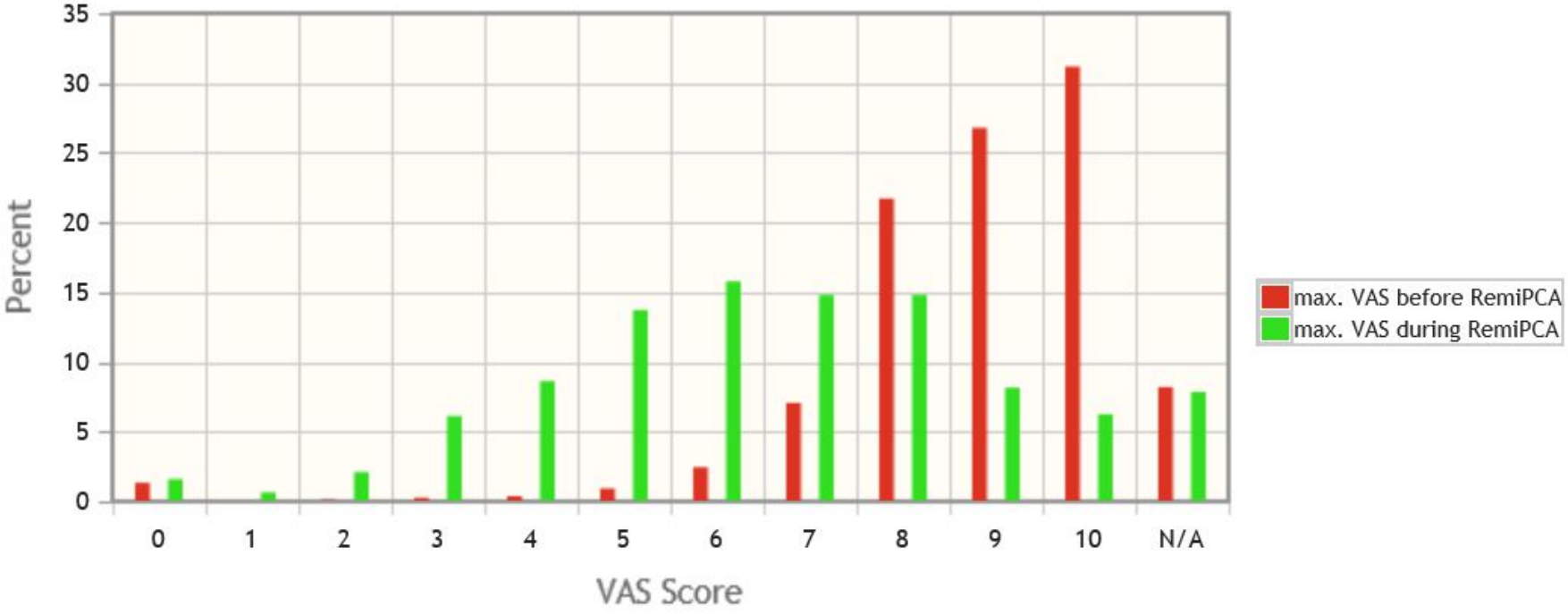
Melber et al 8/2019 *IJOA*



Satisfaction mother with PCA



Pain Reduction (VAS)



Melber et al 8/2019 *IJOA*

Table 7 Severe maternal and neonatal adverse events

		2010	2011	2012	2013	2014	2015	Total
Total number of cases		(438)[†]	(662)[†]	855	1033	1386	1366	4640
Ventilation mother		–	–	0	0	0	0	0
CPR mother		–	–	0	0	0	0	0
CPR neonate	Alerts unrelated to PCA[‡]	–	–	7	7	22	13	49 (1.1 %)
(n=4559)	Alerts potentially related	–	–	3[¶]	8[¶]	1	1	13 (0.3 %)
	Total RemiPCA alerts	–	–	10	15	23	14	62 (1.4 %)

Data present absolute numbers when not otherwise indicated. PCA: patient-controlled analgesia. CPR: cardiopulmonary resuscitation.
[†]In 2010 and 2011 severe events were not specifically addressed in the questionnaire, but hospitals exchanged experience through direct contact. These cases are not included in the overall number of cases.
[‡]Unrelated to remifentanil PCA if (a) conversion to epidural analgesia, (b) delivery via caesarean section, (c) remifentanil PCA was stopped >15 min prior to delivery, (d) severe neonatal pathology or pathological course of delivery was already known or present.
[¶]In 2012 and 2013, it was not possible to evaluate the event regarding the relation to remifentanil PCA. The RemiPCA Alert function, including detailed reporting for the evaluation of severe events, was established in 2014.

Melber et al 8/2019 *IJOA*

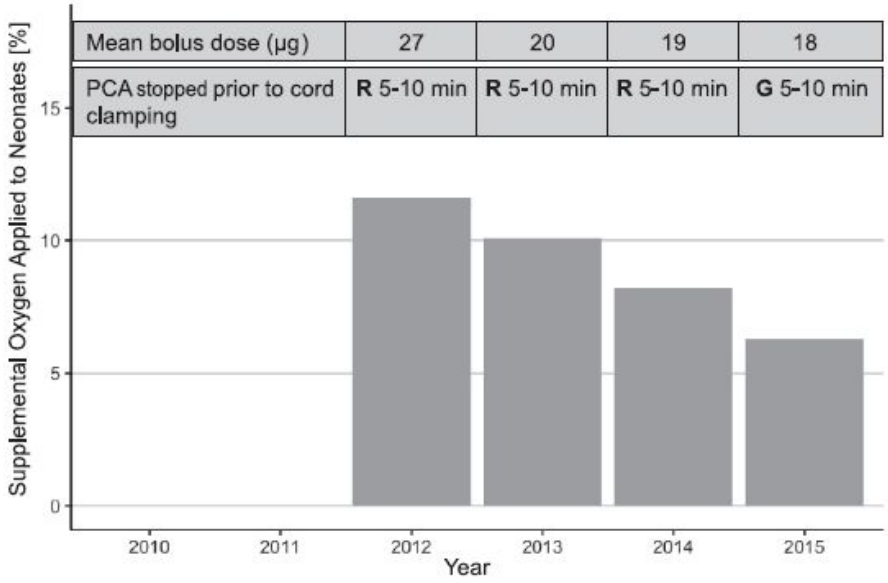


Fig. 4 Supplemental oxygen applied to neonates. Data reflect percentages when not indicated otherwise. R: Recommendation. G: Guideline (set as a mandatory standard in the network standard operating procedure)

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Table 5 Duration of remifentanil patient-controlled analgesia, dependent on cervical dilatation, in nulliparous compared with multiparous women who delivered vaginally

	Nullipara n=1717		Multipara n=1375	
Cervical dilatation	Number (%)	Duration [h]	Number (%)	Duration [h]
less than 1 cm	74 (4%)	5.0 (1.3, 13.0)	44 (3%)	2.6 (1.3, 10.7)
1–4 cm	595 (35%)	4.3 (0.2, 13.2)	511 (37%)	2.3 (0.3, 10.2)
5–9 cm	865 (50%)	3.0 (0.3, 16.0)	722 (53%)	1.7 (0.2, 16.8)
fully dilated	183 (11%)	1.7 (0.1, 5.2)	98 (7%)	1.1 (0.0, 11.2)
Total	**1717** (100%)	**3.3** (0.1, 16.0)	**1375** (100%)	**1.8** (0.0, 16.8)

Data are numbers (%) and duration is stated as median (minimum, maximum).

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Table 4 Mode of delivery of parturients not changing from remifentanil patient-controlled analgesia; and having converted to epidural analgesia prior to delivery

Mode of delivery	Analgesia for delivery		Total n=5400
	Remifentanil PCA until delivery n=4319	Remifentanil PCA with conversion to epidural analgesia n=1081	
Spontaneous vaginal	3480 (80.6%)	416 (38.5%)	3896
Instrumental	508 (11.7%)	305 (28.2%)	813
Caesarean section	331 (7.7%)	360 (33.3%)	691

Data are numbers (%). PCA: patient-controlled analgesia.

Thank you!

Appendix A. RemiPCA SAFE Network Group

Kantonsspital Aarau (Dr. Barbara Bauer, Dr. Monya Todesco-Bernasconi); Klinik Aarau, Hirslanden AG (Dr. Christian Zettler, Salome Kubli); Universitätsspital Basel (Dr. Claudia Vonlanthen-Petrimpol, Prof. Thierry Girard); Kantonsspital Bruderholz (Dr. Anja Baltussen); Klinik Engeried, Bern (Dr. Peter Müller, Barbara Huber); Lindenhofspital Bern (Dr. Daniel Sasdi); Privatklinik Linde AG Biel (Dr. Christina Amport, Brigitte Graf); Regionalspital Emmental, Burgdorf (Dr. Caroline Oswald, PD Dr. Luzius Hiltebrand); Salem-Spital, Bern (PD Dr. Markus Ammann, Dr. David Ehm, Dr. Andrea Anna Melber, Dr. Alexsandra Immer-Bansi, Regula Ingold); Spital Frutigen (Dr. Norbert Müller-Strobelt, Heidi Jordi), Spital Münsingen, Inselgruppe AG (Dr. Andrea Anna Melber, Dr. Marc Dubler, Dr. Rocher Rauch); Hôpitaux Universitaires de Genève (HUG) (Dr. Benno Rehberg-Klug, Prof. Georges Savoldelli); Ospedale San Sisto, Poschiavo (Dr. Irene Sandmeier, Silvana Semadeni); Spital Oberengadin, Samedan (Dr. Christoph Winkler, Dr. Ladina Ganeo, Roswitha Folie); Klinik Stephanshorn, St Gallen (Dr. Jörg Frei, Dr. Andreas Stahel); Spital Wil (Dr. Anne-Dore Sturm, Dr. Cecile Leimgruber-Schenk); Kantonsspital Frauenfeld (Dr. Katja Bischof, Dr. Gundula Hebisch); Kantonsspital Münsterlingen (Dr. Pascal Welpe, PD Dr. Thomas Neff); Kantonspital Winterthur (Dr. Doris Hofstetter, Dr. Jeaninne Brandenberg, Dr. Nina Meier); Klinik Im Park, Zürich (Dr. Pascale Stapfer, Dr. Martin Fröhner, Nathalie Colling); Privatklinik Bethanien, Zürich (Dr. Karin Gott, Dr. Julia Peyer); Privatklinik Lindberg, Winterthur (Dr. Doris Hofstetter, Dr. Julia Peyer); Spital Limmattal, Schlieren (Dr. Judith Wyss, Dr. Thomas Hegi); See-Spital, Horgen (Dr. Cornelia Baumann; Dr. Mirko Brenni); Stadtspital Triemli, Zürich (PD Dr. Stephan Blumenthal, Dr. Gabriella Stocker); GZO Spital Wetzikon (Dr. Barbara Blöchlinger-Wegmann, Dr. Peter Baur); Spital Lachen (Dr. Swantje Weber, Kathrin Meier); Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne (Dr. Moira Bäriswyl, Prof. Christian Kern); Spital Davos AG (Dr. Dietrich Hübner); Universitätsklinik Würzburg (Prof. Peter Kranke); DRK Kliniken Berlin, Westend, Berlin (Nadia Schapiro, Prof. Arnd Timmermann);

10 Years RemiPCA SAFE Network

We know what we are doing!

The remifentanil PCA is the only procedure in obstetrics that, with the help of the network, gives transparent insight on the effects and side effects of the method within the own hospital and over all participating hospitals. We are thus always able to review and improve our actions.

10 Years RemiPCA

All should know what they are doing!

Every procedure that we use must be performed safely and its effects and side effects should be continually reviewed. Without this control, our actions are based only on emotion, anecdotes and opinions rather than facts.

It should be our goal to have such data collection available for all other procedures as well. This would give us an overall picture of the impact of our analgesics on the course of delivery, mother and child.

10 Years RemiPCA

Common responsibility!

Only by systematically pooling our clinical experience can we learn from each other. With this we achieve real progress in our daily activities. That's the real benefit for mother and child.

Research is very important, but ultimately what counts is what enters the clinical routine and what is carried out safely.

To Do

Pain therapy in labour needs to be organised consciously, transparently, and interdisciplinarily.


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