

Moderní anestezie

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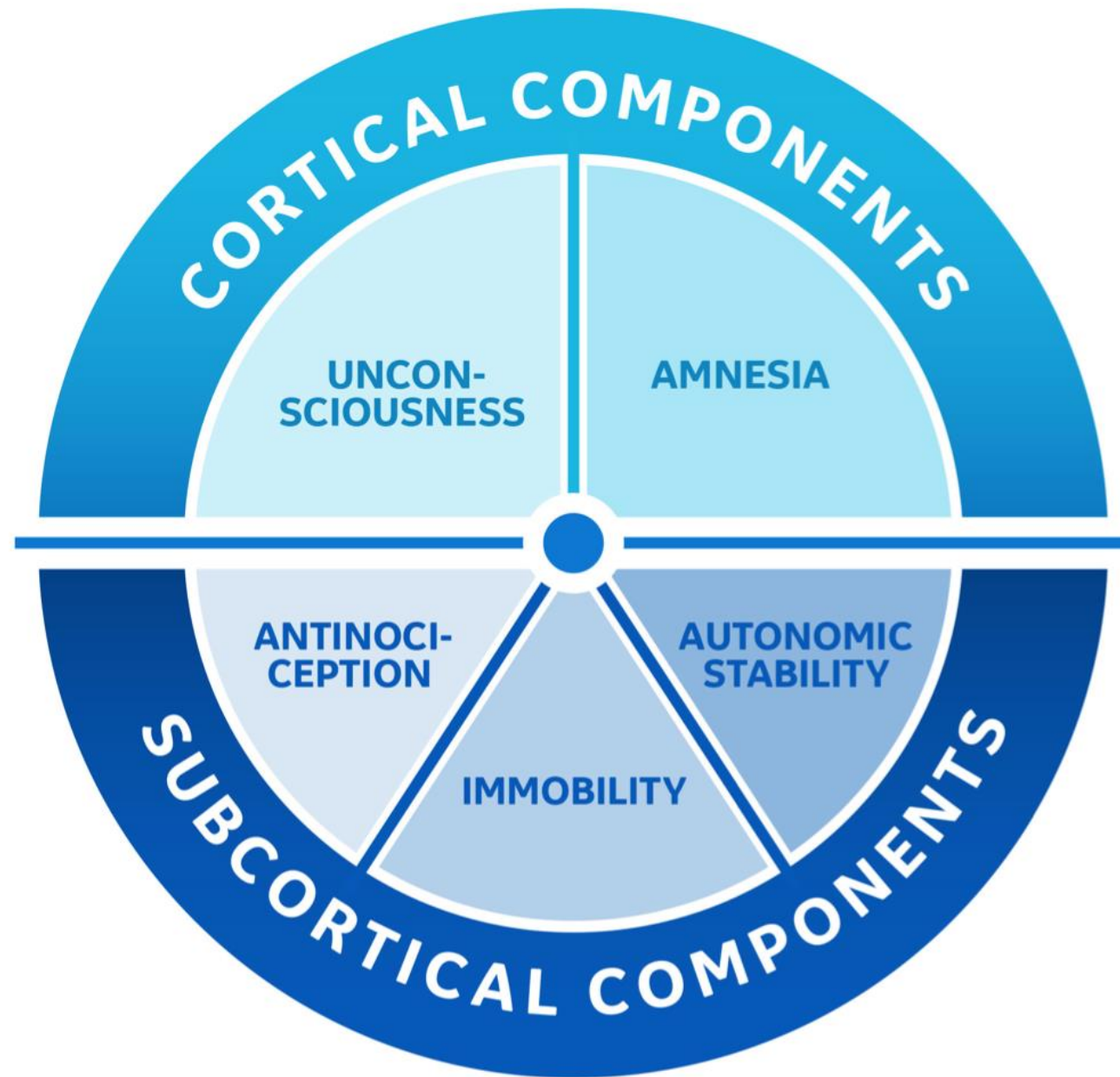
KLINIKA ANESTEZIOLOGIE, PERIOPERAČNÍ A INTENZIVNÍ MEDICÍNY
FAKULTY ZDRAVOTNICKÝCH STUDÍÍ UNIVERZITY J. E. PURKYNĚ V ÚSTÍ NAD LABEM
A KRAJSKÉ ZDRAVOTNÍ, a.s. – MASARYKOVY NEMOCNICE V ÚSTÍ NAD LABEM, o.z.



**Krajská zdravotní
Nemocnice Děčín**

Střet zájmů

- Přednášková činnost pro GE HEALTHCARE na téma IOLPV a AoA
- Přednášková činnost pro medisap s.r.o. na téma IOLPV a AoA
- Příjemce grantů od Krajská zdravotní a.s. k řešení IOLPV a POCUS kanylace cévních vstupů





ORIGINAL ARTICLE

Comparison of adequacy of anaesthesia monitoring with standard clinical practice monitoring during routine general anaesthesia

An international, multicentre, single-blinded randomised controlled trial

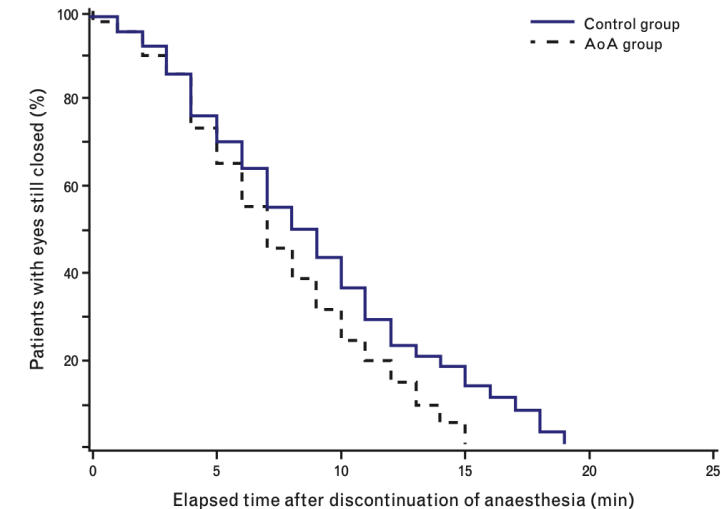
Matthias Gruenewald*, Jarkko Harju*, Benedikt Preckel, Zsolt Molnár, Arvi Yli-Hankala, Florian Roskopf, Lena Koers, Agnes Orban and Berthold Bein, AoA Study Group

Table 3 Number of unwanted events during surgery

Event	Control group, N=248	AoA group, N=246	P
Inadequate anaesthesia	175 (0.71)	183 (0.74)	0.519
Hypertension	98 (0.40)	119 (0.48)	0.316
Tachycardia	15 (0.06)	8 (0.03)	0.433
Movements	62 (0.25)	56 (0.23)	0.493
Somatic arousal	48 (0.19)	39 (0.16)	0.652
Somatic response	14 (0.06)	17 (0.07)	0.497
Hypotension	292 (1.17)	341 (1.38)	0.543
Bradycardia	190 (0.77)	229 (0.93)	0.675
Total unwanted events	657 (2.65)	753 (3.01)	0.392

Values are total number of events (average number of events per patient). (Limit of statistical significance $P_B < 0.006$). AoA, adequacy of anaesthesia.

Fig. 2. Emergence time to eye-opening, calculated from discontinuation of anaesthetic administration to eye-opening, described as a Kaplan–Meier curve



The log-rank P value comparing the adequacy of anaesthesia group and control group is 0.0016. AoA, adequacy of anaesthesia.

CONCLUSION In the current study, the guidance of total intravenous anaesthesia by Entropy and surgical pleth index in comparison with standard monitoring alone was not able to validate reduction of unwanted anaesthesia events. However, there was a reduction in the use of propofol, and shorter times for emergence and time spent in the postanesthesia care unit.

Surgical Pleth Index (SPI)



Comparison of Surgical Stress Index-guided Analgesia with Standard Clinical Practice during Routine General Anesthesia: A Pilot Study **FREE**

Xinzhong Chen, M.D.; Carsten Thee, M.D.; Matthias Gruenewald, M.D.; Jan Wnent, M.D.; Christoph Illies, M.D.; Jan Hoecker, M.D.; Robert Hanss, M.D.; Markus Steinfath, M.D.; Berthold Bein, M.D., D.E.A.A.

Anesthesiology May 2010, Vol. 112, 1175–1183.

<https://doi.org/10.1097/ALN.0b013e3181d3d641>

Conclusions

SSI-guided anesthesia resulted in lower remifentanyl consumption, more stable hemodynamics, and a lower incidence of unwanted events.

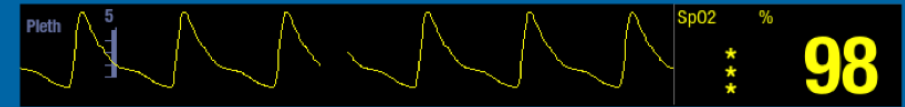
British Journal of Anaesthesia 103 (4): 586–93 (2009)
doi:10.1093/bja/aep206 Advance Access publication July 31, 2009

BJA

Influence of different remifentanyl concentrations on the performance of the surgical stress index to detect a standardized painful stimulus during sevoflurane anaesthesia

M. Gruenewald*, P. Meybohm, C. Ilies, J. Höcker, R. Hanss, J. Scholz and B. Bein

Conclusions: The SSI response to tetanic stimulation was dependent on the remifentanyl concentration.



SPI is calculated from the beat-to-beat pulse rate variation (PR) and the plethysmogram amplitude (PPGA).



SPI varies between 0 (no reactivity) to 100 (high reactivity).

Analgezie

Surgical Pleth Index (SPI)

BJA

British Journal of Anaesthesia, 117 (3): 371–4 (2016)

doi: 10.1093/bja/aew226

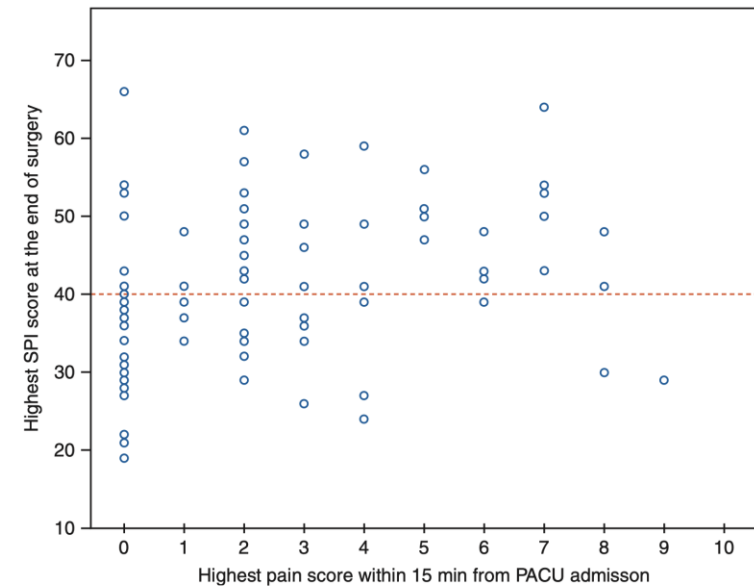
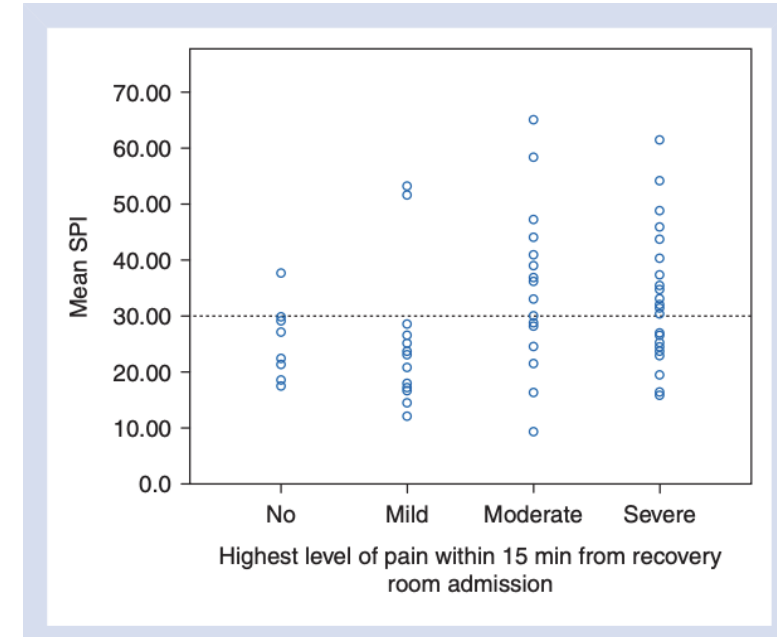
Pain

Surgical pleth index: prediction of postoperative pain and influence of arousal

T. Ledowski^{1,2}, J. Burke³ and J. Hruby⁴

¹School of Medicine and Pharmacology, University of Western Australia, Level 2 Royal Perth Hospital MRF Building, Rear 50 Murray Street, Perth, WA 6000, Australia, ²Department of Anaesthesia and Pain Medicine, Royal Perth Hospital, Perth, WA, Australia, ³Faculty of Medicine, Christian-Albrechts-University Kiel, Kiel, Germany, and ⁴Department of Anaesthesia, Armadale Health Services, Perth, WA, Australia

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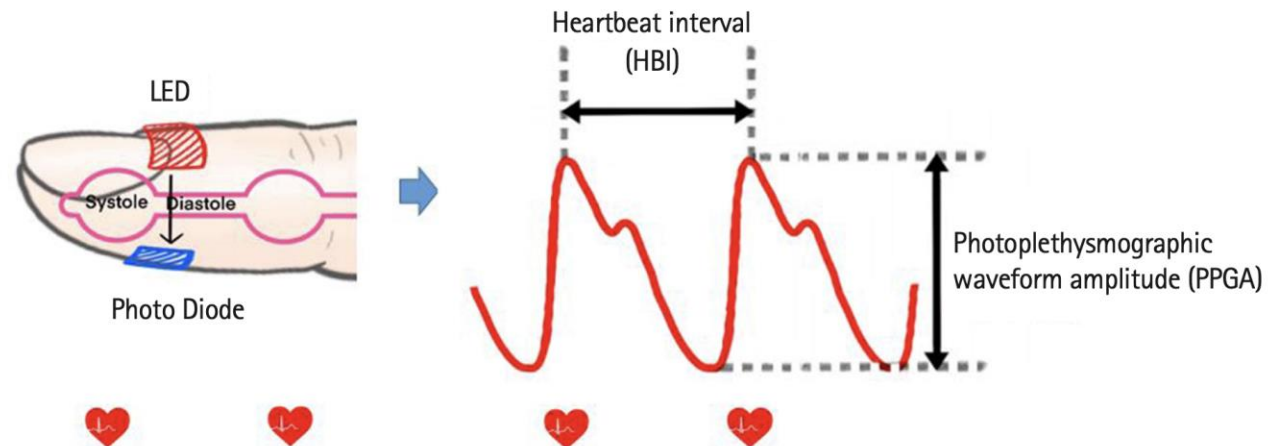
Surgical pleth index monitoring in perioperative pain management: usefulness and limitations

Seok Kyeong Oh*, Young Ju Won*, Byung Gun Lim

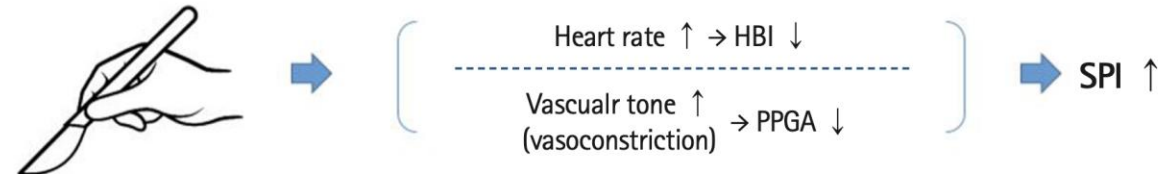
Department of Anesthesiology and Pain Medicine, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Korea

SPI determinants

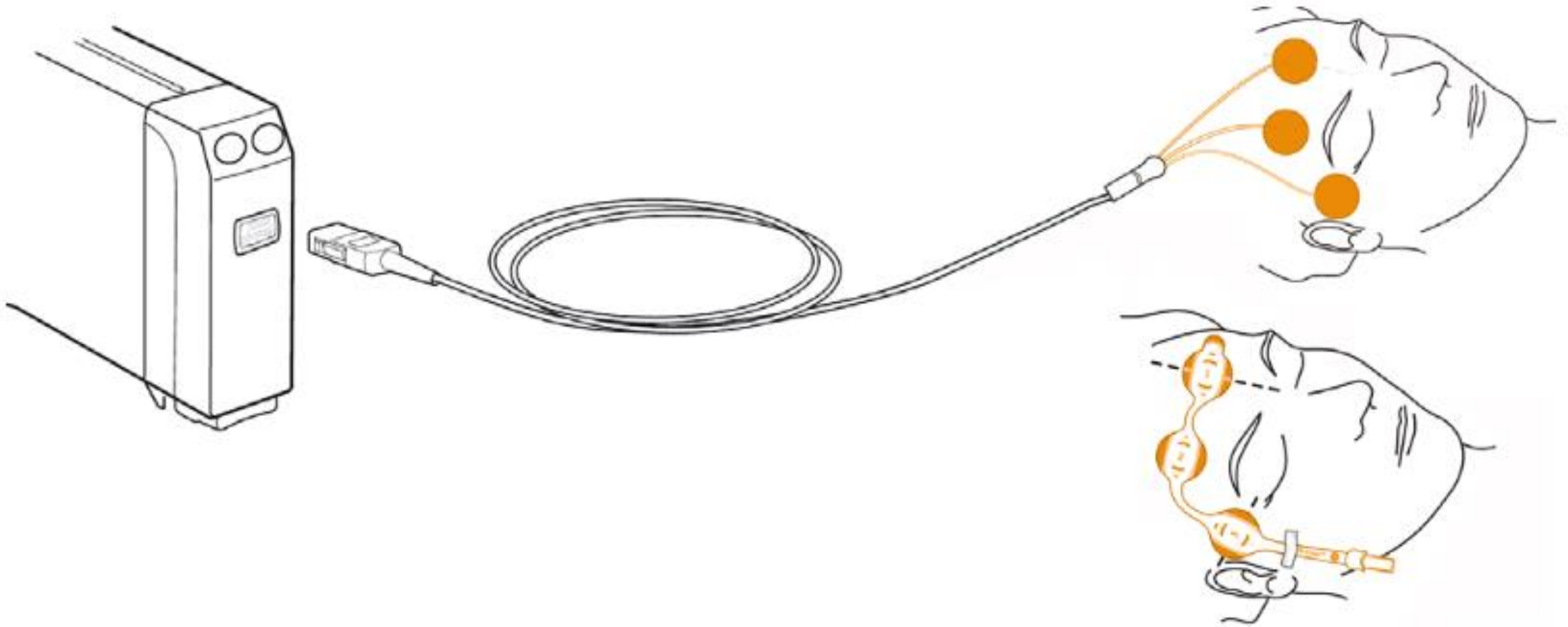
$$\text{SPI} = 100 - (0.33 \times \text{HBI} + 0.67 \times \text{PPGA})$$



Surgical stimulus



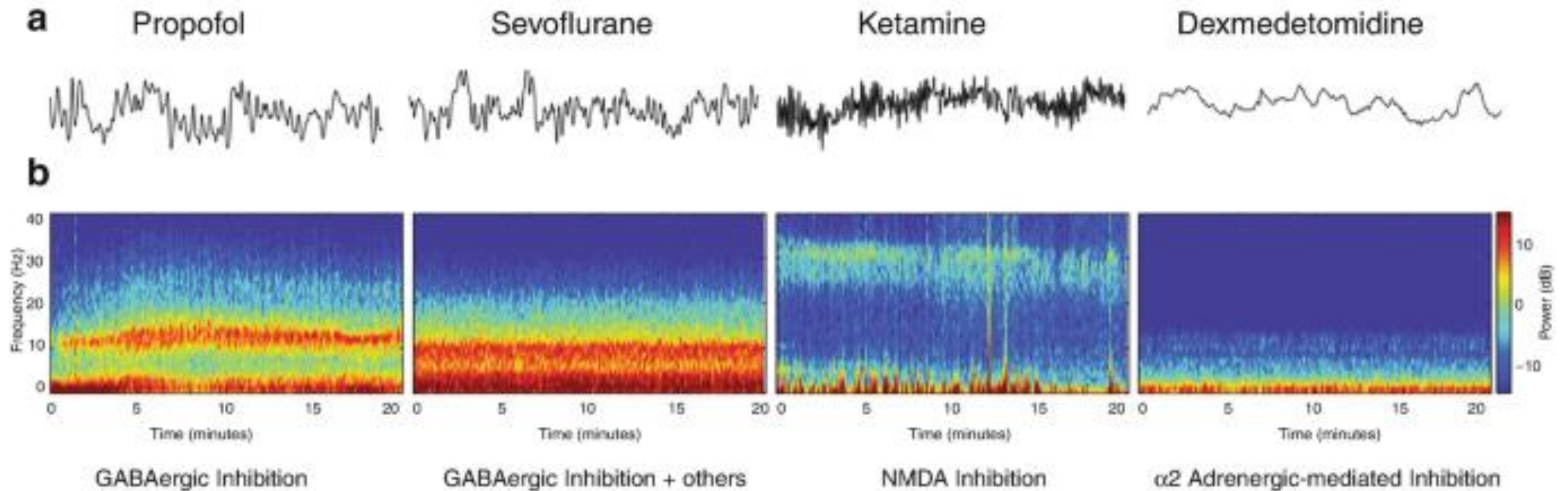
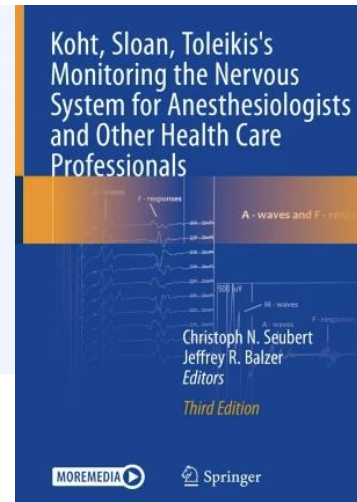
Bezvědomí - Entropie

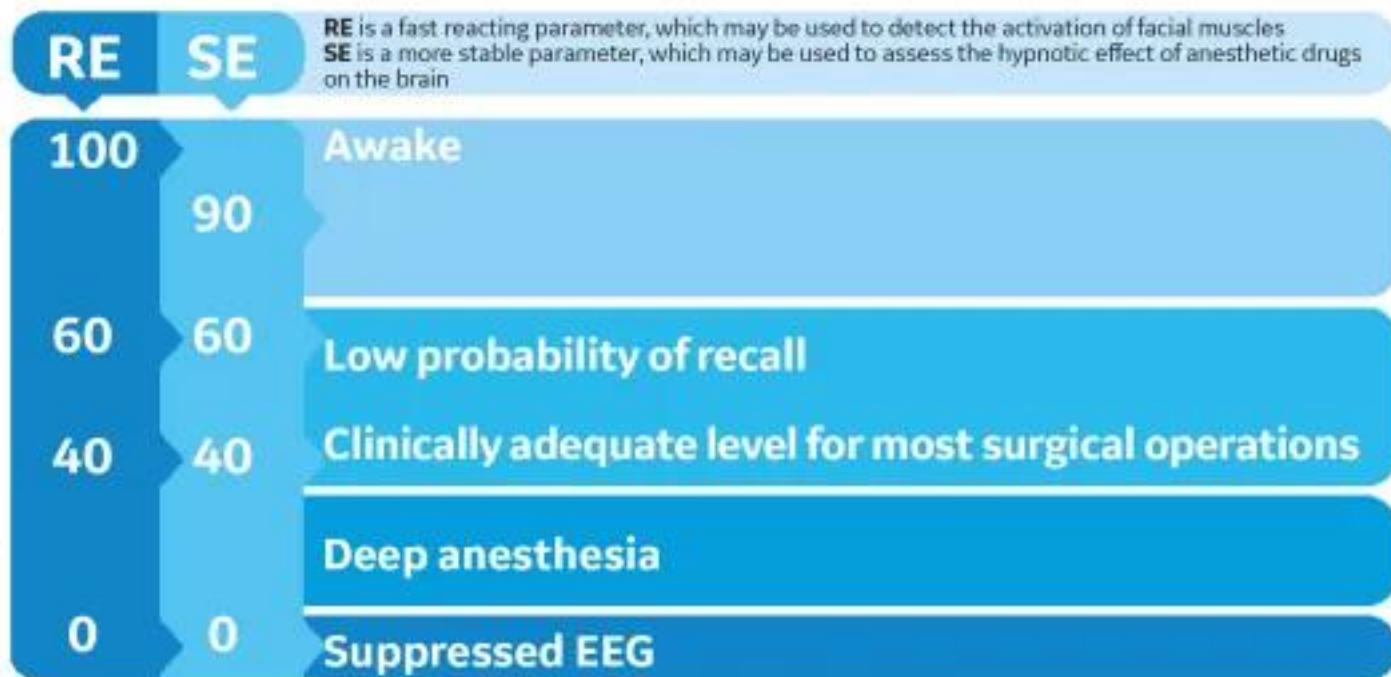
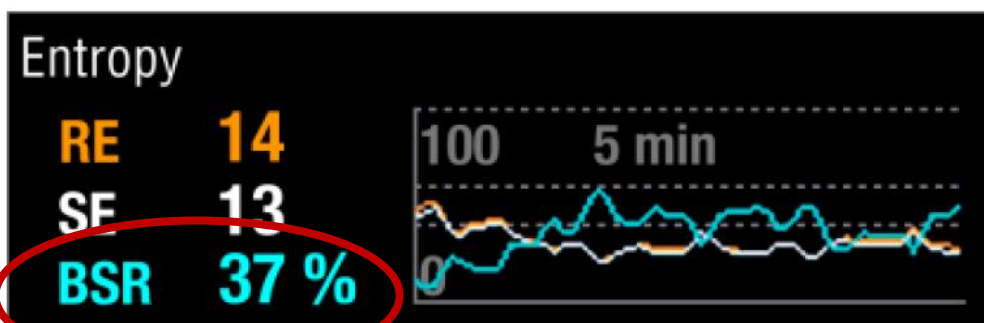
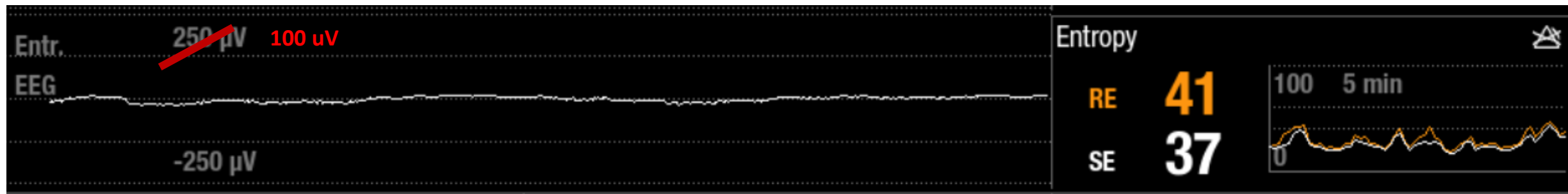


Optimization of Intraoperative Neurophysiological Monitoring Through Anesthetic Management

Chapter | First Online: 01 December 2022

pp 361–392 | [Cite this chapter](#)





Spectral entropy monitoring for adults and children undergoing general anaesthesia

✉ Anjolie Chhabra, Rajeshwari Subramaniam, Anurag Srivastava, Hemanshu Prabhakar, Mani Kalaivani, Saloni Paranjape

Authors' declarations of interest

Version published: 14 March 2016 Version history

<https://doi.org/10.1002/14651858.CD010135.pub2> 

BJA

British Journal of Anaesthesia, 118 (5): 755–61 (2017)

doi: 10.1093/bja/aex054

Neurosciences and Neuroanaesthesia

NEUROSCIENCES AND NEUROANAESTHESIA

Burst-suppression ratio underestimates absolute duration of electroencephalogram suppression compared with visual analysis of intraoperative electroencephalogram

W. G. Muhlhofer^{1,2,*†}, R. Zak^{1,*†}, T. Kamal³, B. Rizvi³, L. P. Sands⁴, M. Yuan⁵, X. Zhang³ and J. M. Leung³

Clinical Neurophysiology: Diseases and Disorders

Emily L. Johnson, Peter W. Kaplan, in [Handbook of Clinical Neurology](#), 2019



Nehybnost - Relaxometrie



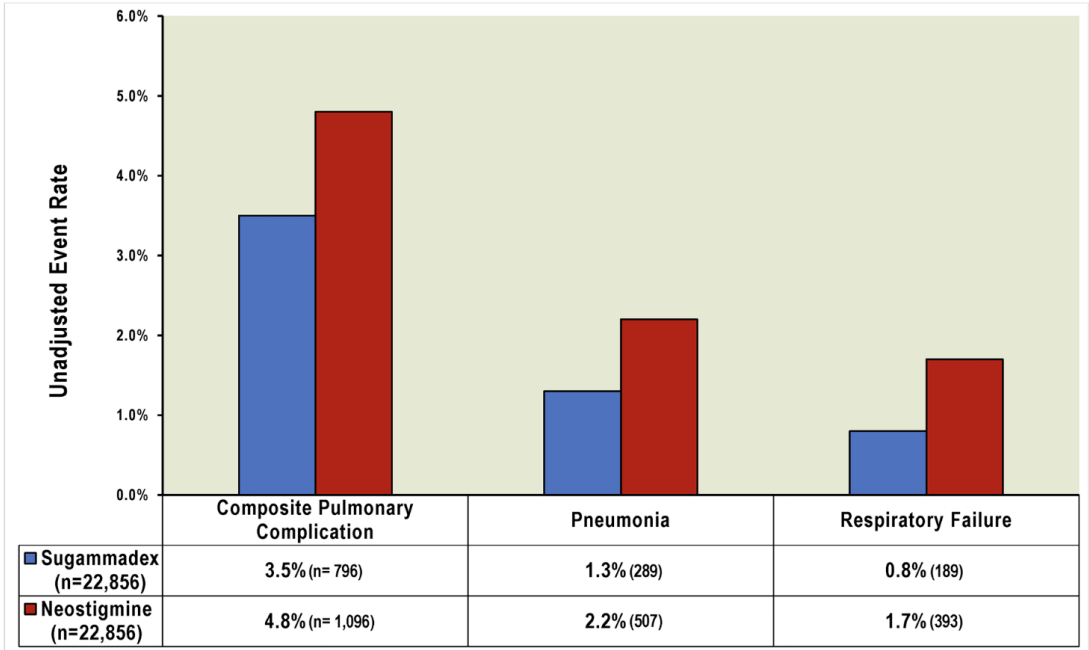
Sugammadex versus Neostigmine for Reversal Of Neuromuscular Blockade and Postoperative Pulmonary Complications (STRONGER): A Multicenter Matched Cohort Analysis

[Sachin Kheterpal](#)¹, [Michelle T Vaughn](#)², [Timur Z Dubovoy](#)³, [Nirav J Shah](#)⁴, [Lori D Bash](#)⁵, [Douglas A Colquhoun](#)⁶, [Amy M Shanks](#)⁷, [Michael R Mathis](#)⁸, [Roy G Soto](#)⁹, [Amit Bardia](#)¹⁰, [Karsten Bartels](#)¹¹, [Patrick J McCormick](#)¹², [Robert B Schonberger](#)¹³, [Leif Saager](#)¹⁴

Postoperative pulmonary complications after sugammadex reversal of neuromuscular blockade: a systematic review and meta-analysis with trial sequential analysis

[Hong-Mei Liu](#), [Hong Yu](#), [Yi-Ding Zuo](#) & [Peng Liang](#) ✉

[BMC Anesthesiology](#) 23, Article number: 130 (2023) | [Cite this article](#)



Sugammadex vs spontánní odeznění vs syntostigmin = méně komplikací pro sugammadex

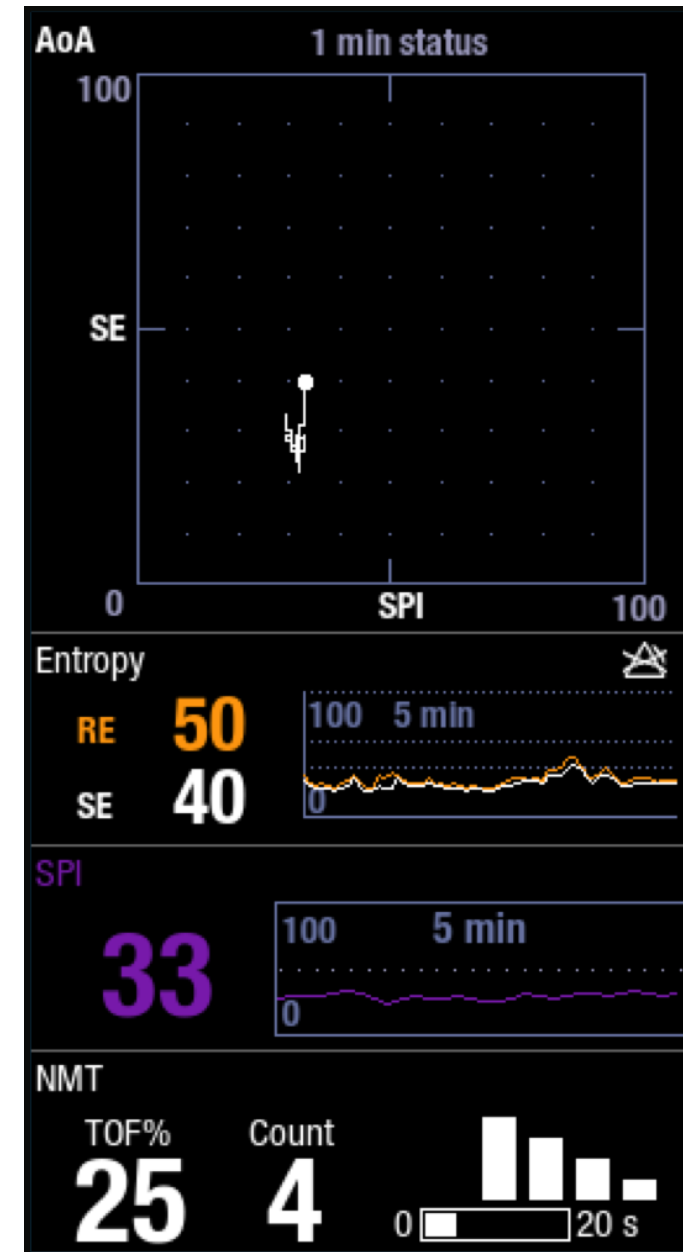
AoA concept

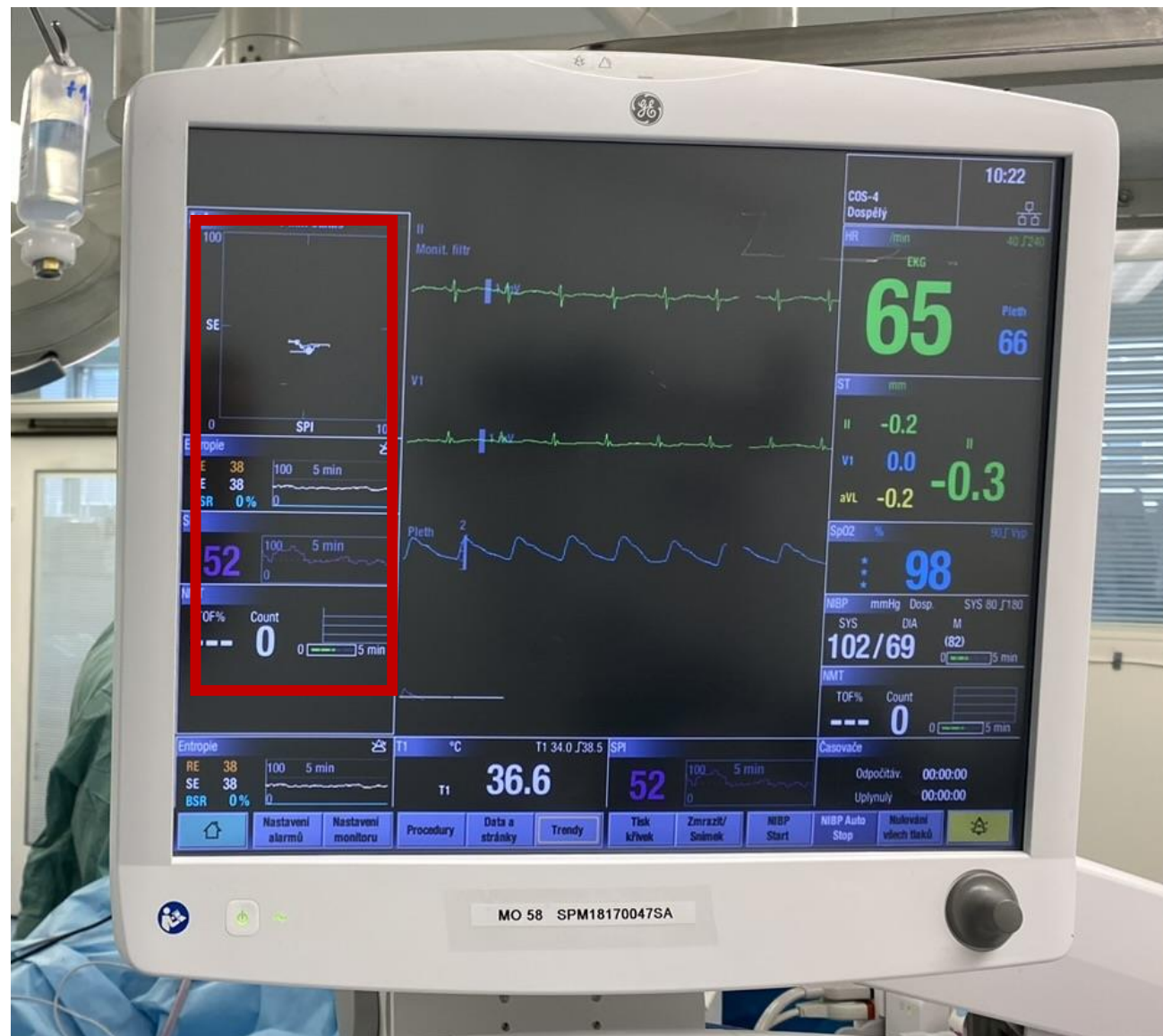


Methods for Assessing Adequacy of Anesthesia

Volume 30, Issue 1-3, 2002, pp. 99-130

DOI: 10.1615/CritRevBiomedEng.v30.i123.60







Děkuji za pozornost
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AoA Masterclass v MNUL

