## Conox<sup>®</sup> 2D Smart Anesthesia Monitoring

### Two Monitors in One

- gCON index assesses the patient's state of consciousness when undergoing sedation and general anesthesia procedures.<sup>1</sup>
- gNOX index provides the patient's probability of response to noxious stimuli.<sup>12</sup>
- BSR, EMG and SQI complete the information about the patient's state.
- Applicable in Operating Room and ICU environment.
- For Adult & Pediatric patients.



#### Usability

- Indices range from 0 to 99.
- Spectrogram view on the screen.
- Touchscreen with easy access to the menu.
- Manual and automatic sensor impedance check every 15 min.
- Audio and visual advisory alerts for qCON values.
- Case recording.

#### Case visualization.

#### Reliability and stability

- Fast calculation of patient's status during intravenous and inhaled anesthesia.<sup>1,3</sup>
- Stable and reliable monitoring, helping anaesthesiologists to reduce the risks associated with anaesthetics.
- Conox connectivity with Android and iOS (ConoxView App).

Compact and lightweight design

• Easy attachment with a 360° pole

for easy portability.

• 1.5 hours of battery life.

• Bluetooth<sup>®</sup> connectivity.

Portable

clamp.

- 1. E.W. Jensen, J.F. Valencia, A. López, T. Anglada, M. Agustí, Y. Ramos, R. Serra, M. Jospin, P. Pineda and P. Gambús, "Monitoring hypnotic effect and nociception with two EEG-derived indices, gCON and gNOX, during general anesthesia", Acta Anaesthesiologica Scandinavica, 58(8), 933-941, Sep 2014
- 2. U. Melia, E. Gabarrón, M. Agustí, N. Souto, P. Pineda, J. Fontanet, M. Vallverdú, E.W. Jensen and P. Gambús, "Comparison of the gCON and qNOX indices for the assessment of unconsciousness level and noxious stimulation response during surgery", Journal of Clinical Monitoring and Computing, 31 (6), 1273-1281, Oct 2016.

#### Recent publications

Christenson, Catherine, Pablo Martinez-Vazguez, Max Breidenstein, Borzoo Farhang, Jackson Mathews, Umberto Melia, Erik Weber Jensen, and Donald Mathews. "Comparison of the Conox (QCON) and Sedline (PSI) Depth of Anesthesia Indices to Predict the Hypnotic Effect during Desflurane General Anesthesia with Ketamine." J Clin Monit Comput 35, 1421-1428. Dec 2021.

Fernández-Candil, J.L., Terradas, S.P., Barriuso, E.V. et al. Predicting unconsciousness after propofol administration: qCON, BIS, and ALPHA band frequency power. J Clin Monit Comput, 35, 723-729, Aug 2021.

Zanner, Robert, Gerhard Schneider, Adrian Meyer, Eberhard Kochs, and Matthias Kreuzer. "Time delay of the qCON monitor and its performance during state transitions." J Clin Monit Comput, 35, 379-386 Apr 2021.

Sahinovic, Marko M., van den Berg, Johannes P. Colin, Pieter J., Gambus, Pedro L., Jensen, Erik W., Agustí, Mercé; Ferreiro, Teresa; Struys, Michel M. R. F., Müller JN, Kreuzer M, García PS, Schneider G, Hautmann H. "Monitoring "Influence of an "Electroencephalogram-Based" Monitor Choice on the Delay Between the Predicted Proporol Effect-Site Concentration and the Measured Drug Effect", Anesthesia & Analgesia, 131 (4), 1184-1192, Oct 2020.

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# Conox<sup>®</sup> 2D

### Smart Anesthesia Monitoring

Wang X, Zhang J, Feng K, Yang Y, Qi W, Martinez-Vazquez P, Zhao G, Wang T. "The effect of hypothermia during cardiopulmonary bypass on three electro-encephalographic indices assessing analgesia and hypnosis during anesthesia: consciousness index, nociception index, and bispectral index."

3. Robert, Gerhard Schneider, Adrian Meyer, Eberhard Kochs, and Matthias

state transitions", J Clin Monit Comput, 35, 379-386, Apr 2021.

Kreuzer, "Time delay of the qCON monitor and its performance during

Ledowski, Thomas, and Isabel Schmitz-Rode. 2020. "Predicting Acute Postoperative Pain by the Onox Score at the End of Surgery: A Prospective Observational Study." British Journal of Anesthesia 124 (2), 222-26, Nov 2019.

Kulkarni, Nayana, Rajnish Nagarkar, Ravindra Tandale, Shital Patil, and Shirish Deo. 2018. "Anaesthetic Management of a Case of Dilated Cardiomyopathy for Breast Surgery with Supraglottic Airway Device." MedPulse International

depth of sedation: evaluating the agreement between the Bispectral Index, qCON and the Entropy Module's State Entropy during flexible bronchoscopy", Minerva Anestesiol 83, 563-73, Jun 2017.



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**Conox** is a non-invasive depth of anesthesia monitor that aims to assess the hypnotic and analgesic effects of sedation and general anesthesia.

### **Clinical Benefits:**

- Reduced incidence of awareness under anesthesia
- Optimized drug consumption
- Reduced anesthetic exposure
- Attenuation of potential postoperative adverse effects from overdose
- Reduced time needed for post anesthesia recovery and tracheal extubation
- Reduced risk of postoperative delirium and postoperative cognitive disorders
- Reduced ICU stay and hospital stay

### **Conox** Sensor

Both hypnotic effect and probability of response indices are obtained from one single sensor

### Two monitoring solutions in one device:

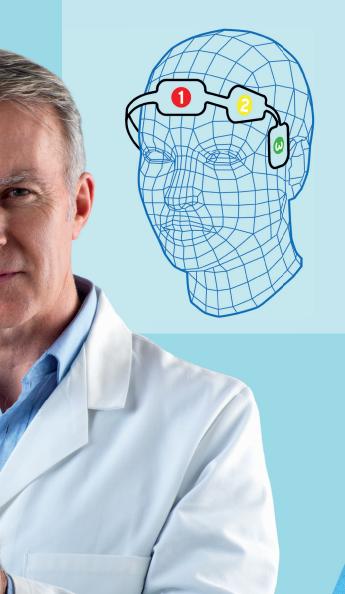
qNOX				
	61-99	Patient likely to respond to noxious stimuli		
	40-60	Patient unlikely to respond to noxious stimuli		
	0-39	Very low probability for the patient to respond to noxious stimuli		
1 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.1			Probability of response to tracheal intubation	
	0 10 20	aNOX		

<sup>1</sup> E.W. Jensen, J.F. Valencia, A. López, T. Anglada, M. Agustí, Y. Ramos, R. Serra, M. Jospin, P. Pineda and P. Gambús, "Monitoring hypnotic effect and nociception with two EEG-derived indices, qCON and qNOX, during general anesthesia", *Acta Anaesthesiologica Scandinavica*, vol. 58(8), pp. 933-941, Sep 2014.

### qCON

80-99	Awake
61-79	Sedation or light anesthesia
40-60	Adequate anesthesia
0-39	Deep anesthesia





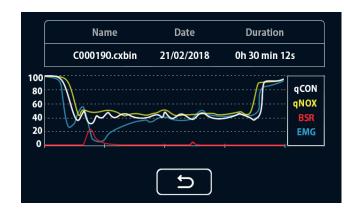
- Single use sensor for both adult and pediatric patients.
- Wet gel design for low impedance
- Completely non-invasive
- Long usage time

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• Latex free



### Storage and visualization functions



### **ConoxView** App

- Connectivity via Bluetooth®
- Visualize the Conox indices and the spectrogram of the current case on an Android or iOS device
- Save the case on the Smartphone, tablet or PC

- Store the current case in the Conox memory
- Organize recorded cases on the device
- Visualize the Conox indices obtained in a saved case



