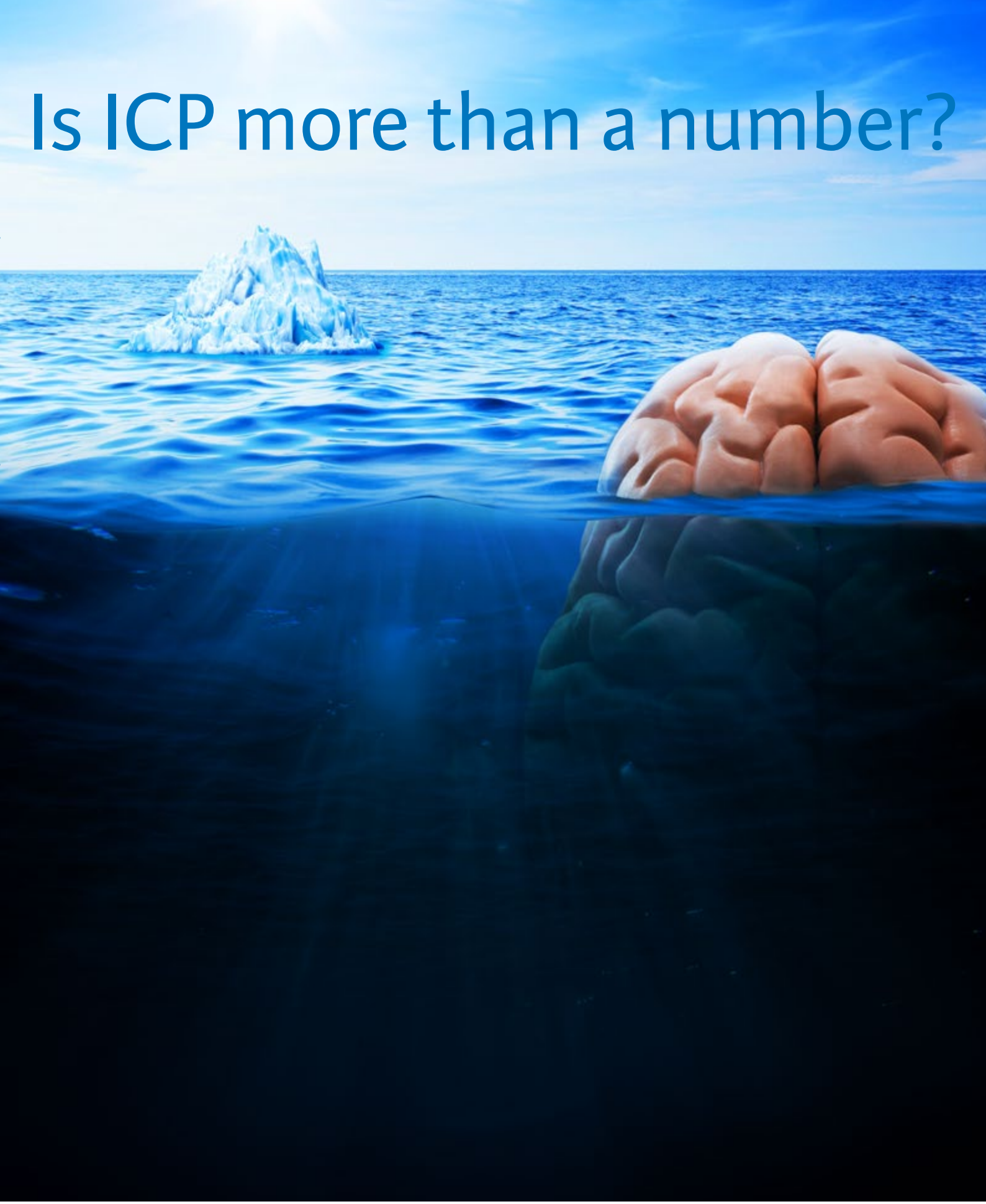
Is ICP more than a number?



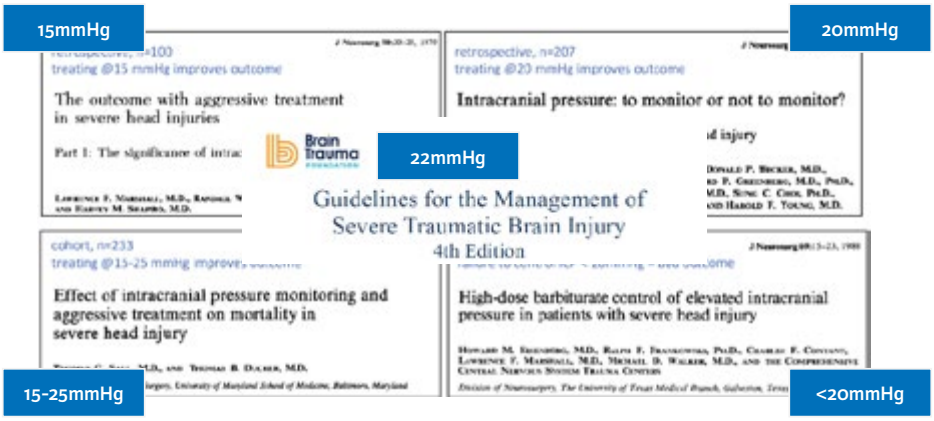
Codman® CereLink™

ICP Monitoring Solution

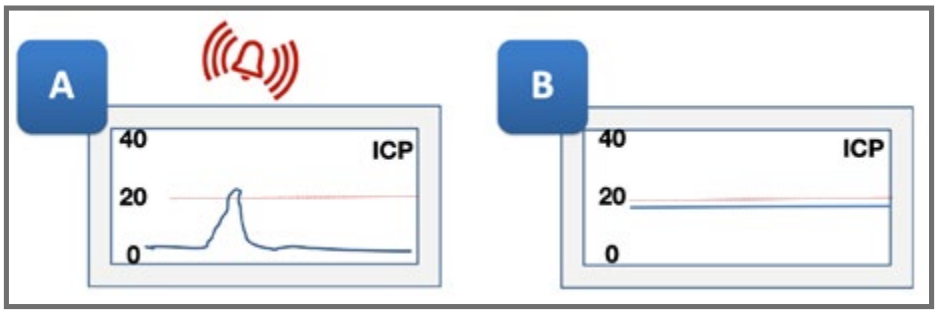
Discover the Unseen

Codman® CereLink™
ICP Monitoring Solution

No consensus on optimal ICP Threshold[1,2,3,4,5]



An ICP-alarm alone may not capture the whole picture

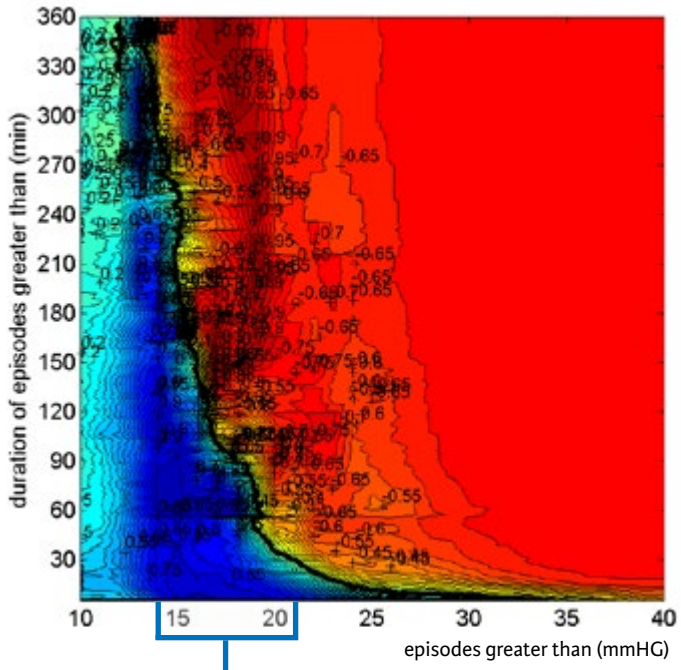


Courtesy Prof Citerio, University of Bicocca, Milan, Italy

An ICP between 15 and 20 mmHg can be harmful, if left untreated[6].

ICP data from 22 neuro-Intensive care units in 11 European countries show correlation between ICP Burden & Worse outcome[6].

Correlation Time-Pressure Burden & GOS
(n=261, p=0.014)[6,*]



19% of episodes linked with worse outcome were between 15 - 20 mmHg[6]

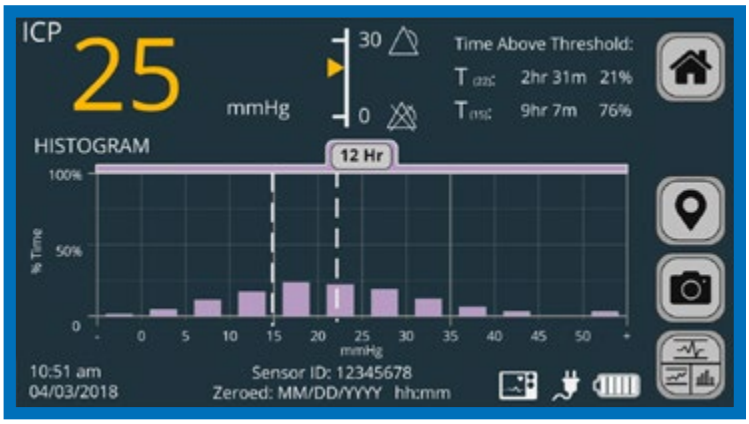
Patients may suffer from irreversible secondary brain injury.

*Each point in the graph refers to a number of episodes of ICP (above a certain ICP threshold (X-axis) & above a certain duration threshold (Y-axis)). Red = number of ICP episodes are associated with worse outcome (GOS 1-3). Blue = number of ICP episodes are associated with better outcome (GOS 4-5).

Understand the individual ICP Burden with CereLink™'s analytics.

Time above threshold & Histograms

visualize time of ICP above a user set threshold & time at specific ICP intervals.



Pressure Time Dose (PTD)

is the calculated area-under-curve (AUC) above a defined ICP value within a chosen time interval.

▼ Scan to learn more ▼

DOCUMENT FOR USE IN EUROPE, MIDDLE-EAST and AFRICA ONLY

Codman® CereLink™
Ordering information

Ordering Information:

Product Code	Description	Picture
826820	CereLink™ ICP Monitor	
826850	CereLink™ ICP Sensor Basic Kit	
826851	CereLink™ ICP Metal Bolt Kit	
826852	CereLink™ ICP Plastic Bolt Kit	
826854	CereLink™ ICP Ventricular Kit	

CereLink™ Patient Monitor Interface Cables		
Product Code	**Description**	**Picture**
826881	PHILIPS	
826882	GE Dash	
826884	GE Datex-Ohmeda	
826880	DRAGER / SIEMENS Infinity	
826883	SPACELABS 6-pin	
826887	NIHON KODEN 5-pin	
826888	FUKUDA DENSHI DS-800	
826889	FUKUDA DENSHI DS-7000	

Cerelink™ ICP Monitor Technical specifications[7]:	
Size: H 165 mm x W 222 mm x D 50 mm	Screen diagonale: 18 cm TFT LCD
Weight: 1.5 Kg	Battery autonomy: 3 h

1. Carney N et al. Guidelines for the Management of Severe Traumatic Brain Injury, Fourth Edition, Neurosurgery, Volume 80, Issue 1, January 2017, Pages 6–15, https://doi.org/10.1227/NEU.0000000000001432
2. Marshall, L. F., Smith, R. W., & Shapiro, H. M. (1979). The outcome with aggressive treatment in severe head injuries, Journal of Neurosurgery, 50(1), 20-25. Retrieved Mar 10, 2020, from https://thejns.org/view/journals/j-neurosurg/50/1/article-p20.xml
3. Narayan, R. K., Kishore, P. S., Becker, D. P., Ward, J. D., Enas, G. G., Greenberg, R. P., Da Silva, A., Lipper, M. H., Choi, S. C., Mayhall, C., Lutz, H. A., & Young, H. F. (1982). Intracranial pressure: to monitor or not to monitor?, Journal of Neurosurgery, 56(5), 650-659. Retrieved Mar 10, 2020, from https://thejns.org/view/journals/j-neurosurg/56/5/article-p650.xml
4. Saul, T. G., & Ducker, T. B. (1982). Effect of intracranial pressure monitoring and aggressive treatment on mortality in severe head injury, Journal of Neurosurgery, 56(4), 498-503. Retrieved Mar 10, 2020, from https://thejns.org/view/journals/j-neurosurg/56/4/article-p498.xml
5. Eisenberg, H. M., Frankowski, R. F., Contant, C. F., Marshall, L. F., Walker, M. D., & Comprehensive Central Nervous System Trauma Centers. (1988). High-dose barbiturate control of elevated intracranial pressure in patients with severe head injury, Journal of Neurosurgery, 69(1), 15-23. Retrieved Mar 10, 2020, from https://thejns.org/view/journals/j-neurosurg/69/1/article-p15.xml
6. Güiza et al; Visualizing the pressure and time burden of intracranial hypertension in adult and paediatric traumatic brain injury. Intensive Care Med. 2015; 41(6):1067-76.
7. IFU CereLink™ ICP Monitor, LCN 208542-001 Rev. A 11/18 1120997-1.

Codman® CereLink™
ICP Monitoring Solution

Keeping severe TBI patients below an ICP of 20 mmHg is the current standard of practice.

However, even a normal ICP between 15 & 20 mmHg can be harmful, if left untreated[6].

Changing your TBI protocol to include the advanced analytics of CereLink™ will help to understand the individual ICP burden and avoid unnecessary brain injuries.

Indications CereLink™ Sensors:

Use of the kit is indicated when direct intracranial pressure (ICP) monitoring is required. The kit is indicated for use in both subdural and intraparenchymal pressure monitoring applications. Use of the ICP Sensor Ventricular Catheter Kit is indicated when direct intraventricular
pressure monitoring is required. The kit is indicated for use in ICP monitoring and cerebrospinal fluid (CSF) drainage applications.

Contraindications CereLink™ Sensors:

Use of the skull bolt is contraindicated in children less than one year of age. This kit is not designed, sold, or intended for any use except as indicated.
This kit is not designed, sold, or intended for use as a therapeutic device. Ventriculostomy is contraindicated in patients with coagulopathy,
or active infection in the area of the catheter. Use of the Ventricular Catheter is contraindicated in children less than one year of age.
This kit is not designed, sold, or intended for any use except as indicated.

Indications CereLink™ Monitor:

The ICP Monitor is intended for use as an interface between compatible strain gauge type pressure transducers and standard physiological pressure monitoring systems. The ICP Monitor is also intended for use as an independent pressure monitor for displaying the mean, systolic and diastolic numeric values of a physiologic pressure waveform in the absence of an external patient monitor.

Contraindications CereLink™ Monitor:

The ICP Monitor is contraindicated for use in a Magnetic Resonance (MR) environment. Refer to the ICP Sensor IFU for MR environment use.
Use of the kit is indicated when direct intracranial pressure (ICP) monitoring is required.
The kit is indicated for use in both subdural and intraparenchymal pressure monitoring applications.

Indications Patient Monitor Interface Cables

The Patient Monitor Interface Cable is intended for use as a connecting cable between CereLink™ Monitor, and selected patient monitors available from third party suppliers.

Contraindications Patient Monitor Interface Cables

This device is not designed, sold or intended for use except as indicated.

Availability of these products might vary from a given country or region to another, as a result of specific local regulatory approval or clearance requirements for sale in such country or region.
- Non contractual document. The manufacturer reserves the right, without prior notice, to modify the products in order to improve their quality.
- Warning: Applicable laws restrict these products to sale by or on the order of a physician.
- Consult product labels and inserts for any indications, contraindications, hazards, warnings, precautions, and instructions for use.

Products mentioned in this document are CE class I, IIa, IIb & III devices. Please contact Integra customer service should you need any additional information on devices classification. All the medical devices mentioned on this document are CE marked according to European council directive 93/42/EEC on medical devices and its relatives, unless specifically identified as "NOT CE MARKED".

For more information or to place an order, please contact:

Integra Contact - Questions, Information & Product Ordering
International: +33 (0)437 47 59 50 ▪ +33 (0)437 47 59 25 (Fax) ▪ csemea@integralife.com
Austria: +43 (0)720816067 ▪ +43 (0)19287201 (Fax)▪ custsvcaustria@integralife.com
Belgium & Luxembourg: +32 (0)2 257 4130 ▪ +32 (0)2 253 2466 (Fax) ▪ custsvcbenelux@integralife.com
Germany: +49 (0)2102 5535 6200 ▪ +49 (0)2102 5536 636 (Fax) ▪ custsvcgermany@integralife.com
Ireland: +353 1800 901567 ▪ +353 1822 5952 (Fax) ▪ custsvcire@integralife.com
Italy: +39 (0)2 577 89 21 ▪ +39 (0)2 575 113 71 (Fax) ▪ custsvcitaly@integralife.com
Netherlands: +31 (0)852083167 ▪ +31 (0)207093627 (Fax) ▪ custsvcnetherlands@integralife.com
Switzerland: +41 (0)2 27 21 23 00 ▪ +41 (0)2 27 21 23 99 (Fax) ▪ custsvcsuisse@integralife.com
United Kingdom: +44 (0)1264 312 725 ▪ +44 (0)1264 312 821 (Fax) ▪ custsvcs.uk@integralife.com
France: +33 (0) 437 47 59 10 ▪ +33 (0) 437 47 59 29 (Fax) ▪ custservfrance@integralife.com

Integra LifeSciences Production Corporation
11 Cabot Boulevard
Mansfield ▪ MA 02048 ▪ USA
CE 2797

EC REP
Integra LifeSciences Services (France)
Immeuble Séquoïa 2
97 Allée Alexandre Borodine
Parc Technologique de la Porte des Alpes
69800 Saint Priest ▪ France

Integra LifeSciences Switzerland Sarl
Rue Girardet 29 (2nd Floor)
Le Locle ▪ Neuchâtel CH-2400 ▪ Switzerland
CE 2797

INTEGRA®
LIMIT UNCERTAINTY