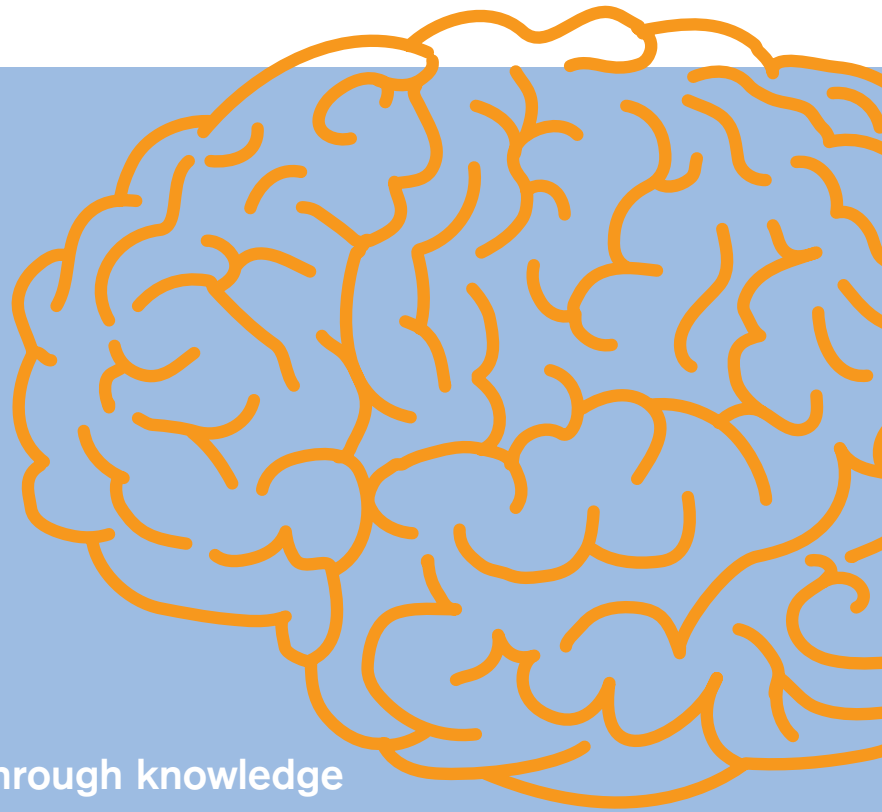



# SmartCare



XLerate weaning through knowledge

# Knowledge Inside

## XLerate the patient off the ventilator ...



ICUs around the world are requesting improvements in monitoring and therapy, equipment performance and quality management, workflow-oriented process optimization, and reduced costs for equipment, maintenance and personnel. To help you meet these challenges, we at Dräger Medical focus on providing you with more cost-effective care with reduced maintenance requirements, improved ergonomics and workflow support, and integrated support for diagnostics and therapy. Simply put, we're working on smarter medical equipment – with “knowledge inside”.

### **Knowledge inside – how SmartCare works**

We've taken the first step to smarter medical equipment by adding a new degree of intelligence to our EvitaXL. By integrating protocolized care into our state-of-the-art ventilator, we free the clinician for the “art of medicine”. SmartCare, a knowledge-based system, is the first member of the new family, and contains automated clinical guidelines based on recognized medical expertise.

### **SmartCare divides the control process into three steps:**

- **Step 1:** Stabilizing the patient within a respiratory comfort zone by regulating the level of pressure support based on three parameters: breathing rate, tidal volume and end tidal CO<sub>2</sub>.
- **Step 2:** Reducing invasiveness by testing whether the patient can tolerate a lower pressure support level without leaving the comfort zone.
- **Step 3:** Testing readiness for extubation by maintaining the patient at the lowest limit of support.

SmartCare continuously takes data from the EvitaXL and uses the mean parameter values to make decisions on whether to adapt pressure support, in two- or five-minute intervals. This kind of knowledge-based system has clear advantages over one based on a preset minute ventilation (MV). Infections or fever may induce a higher metabolic rate, which has to be counterbalanced by an increase in MV, and temporary situations such as increased secretion or suction stress may lead to a higher MV demand. Preset MV systems cannot automatically adjust to such changes, but a knowledge-based approach can.

### **Smarter flexibility – ATC™ and a wide range of patients**

SmartCare is designed to be just as flexible as the EvitaXL. It allows weaning a wide range of patients, as well as using ATC™ for most of these patients. To wean smaller patients there is a separate guideline for patients with body weight between 15 and 35 kg / 33 and 77 lbs. For all other patients ATC™ may be used during the weaning session. In this way SmartCare not only adapts to your patient population, but also allows you to incorporate your therapy strategy, whether it is with or without ATC™.

### **Smarter benefits – protocolized care**

Maintaining the high quality of patient care while reducing the clinical workload and improving workflow support, increasing patient comfort during ICU treatment, reducing the time spent on a ventilator and shortening the patient's stay in the ICU – these are most definitely smarter benefits.

SmartCare - XLerate weaning and patient recovery providing cost-effective care.



## Basic Patient Information and Settings **SmartCare**

**SmartCare Pressure Support is based on a clinical protocol for weaning. To wean successfully, rapidly and with few or no complications, certain settings and patient information are required for operation:**

### **Settings:**

- Patient range: body weight (BW) between 15 and 180 kg / 33 and 397 lbs.
- CPAP<sub>ASB</sub> / CPAP P<sub>supp</sub> in adult or pediatric mode
- Apnoea ventilation activated
- Automatic tube compensation (ATC) deactivated for patients below 35 kg / 77 lbs. BW
- CO<sub>2</sub> and flow monitoring activated
- Max. P<sub>ASB</sub> 40 mbar / cmH<sub>2</sub>O

### **Patient Information:**

- Patient weight
- Type of intubation (for patients above 35 kg / 77 lbs. BW)
- Type of humidification (for patients above 35 kg / 77 lbs. BW)
- Medical history of neurologic disorder or COPD (for patients above 35 kg / 77 lbs. BW)

Europe, Middle East, Africa, Latin America,  
Asia, Pacific:

#### **Dräger Medical AG & Co. KG**

Moislinger Allee 53–55

23542 Lübeck

GERMANY

Tel: +49-451-882-0

Fax: +49-451-882-2080

E-mail: [info@draeger.com](mailto:info@draeger.com)

[www.draeger.com](http://www.draeger.com)

USA:

#### **Draeger Medical, Inc.**

3135 Quarry Road

Telford, PA 18969

USA

Tel: +1-215-721-5400

Toll-free: +1-800-437-2437

Fax: +1-215-723-5935

E-mail: [info@draegermed.com](mailto:info@draegermed.com)

Canada:

#### **Draeger Medical Canada Inc.**

120 East Beaver Creek Road

Suite 104

Richmond Hill Ontario L4B 4V1

CANADA

Tel: +1-905-763-3702

Toll-free: +1-866-343-2273

Fax: +1-905-763-1890

E-mail:

[Canada.Support@draeger.com](mailto:Canada.Support@draeger.com)

Manufacturer: Dräger Medical AG & Co. KG, 23542 Lübeck, Germany

The quality management system at Dräger Medical AG & Co. KG is certified according to ISO 13485, ISO 9001 and Annex II of Directive 93/42/EEC (Medical devices).