Dräger Improves Care by Streamlining the Capture of Vital Anesthesia Data

Informa brings automated workflows into the perioperative environment

International medical technology company, Dräger, needed to improve the capture of vital patient data for its Innovian Anesthesia information management system. It turned to Informa Software to power its new E-Forms module with automated workflows to help enhance patient care and make life easier for clinicians.

Challenge

Need to eliminate duplicated effort

Hospital treatment is dependent on the information collected on numerous forms. Patients are often frustrated by this process and the number of times they must re-enter the same information. Capturing the necessary data is also time-consuming for clinicians and using traditional pen and paper methods can be error-prone, leading to potentially dangerous outcomes.

When patients face procedures like anesthesia, it's essential that their medical histories are correctly documented. While Dräger practitioners have access to the relevant information, the methods used to capture the necessary data needed an overhaul. For this reason, the international leader in medical and safety technology set out to find a solution.

Founded in Lubeck, Germany in 1889, Dräger is a family-run business. With more than 13,000 employees worldwide, it has sales and service organizations in more than 50 countries, as well as development and production facilities in Germany, Great Britain, Norway, Sweden, South Africa, the U.S., Brazil, Chile, the Czech Republic, and China.

One of Dräger's flagship products, Innovian Anesthesia, is a distributed solution that provides comprehensive data management for anesthesiologists. It creates a complete, continuous, paperless record of the patient's anesthetic care.

David Truncer, senior marketing manager at the US-based Dräger, Inc., comments on the process, "As part of the anesthesia workflow, providers typically want to know a good deal about the patient's prior history. For instance, whether they've had any type of surgery before, what type of anesthetic agent was used, and if there were complications.

INDUSTRY

Healthcare

CUSTOMER

Dräger, Inc.
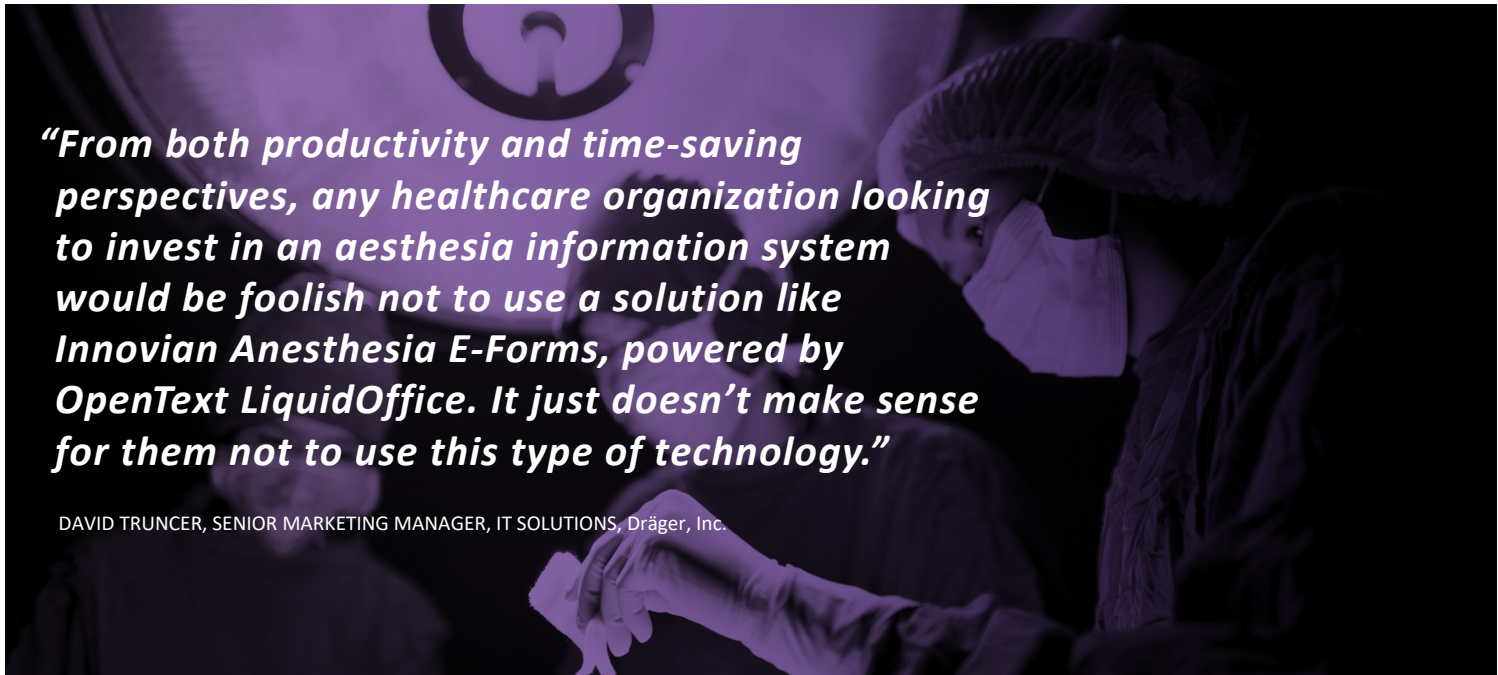
PARTNER

OpenText

CHALLENGES

- *Improve the collection and availability of patient data for better anesthesia management*
- *Need reliable, efficient process automation dataflow solution for web-based data collection systems*

SOLUTIONS

- *OpenText™ LiquidOffice*

BENEFITS

- *Eliminates duplication to accelerate the flow of patient information*
- *Supports automated workflow processes, helping improve patient care*
- *Increases staff productivity and reduces risk of cancelled procedures*

> *"From both productivity and time-saving perspectives, any healthcare organization looking to invest in an aesthesia information system would be foolish not to use a solution like Innovian Anesthesia E-Forms, powered by OpenText LiquidOffice. It just doesn't make sense for them not to use this type of technology."*

DAVID TRUNCER, SENIOR MARKETING MANAGER, IT SOLUTIONS, Dräger, Inc.

They also spend a lot of time getting general history on any illnesses or disabilities that could make placing the patient on the operating table a challenge.

Previously, this was done by way of hand-written paper documents, which then had to be manually input into the back-end systems. It was all driven by paper or verbal communication, which of course is not the best way."

Dräger decided to create an additional Innovian module that would streamline inefficient processes, eliminating the need to capture the same responses in multiple systems and multiple documents.

"To do this, we needed a web-based tool that would allow the nursing staff to capture perioperative historical information and make it readily available to the anesthesia provider," explains Truncer.

Solution

Automated workflow

Dräger decided that the best business automation tool to meet its precise needs was the web-based electronic form and workflow software implemented by Informa Software, LiquidOffice.

With LiquidOffice, the team has gained the functionality to create, deploy, and automatically manage the routing, tracking, and approval processes for electronic forms. The technology provides a fast way to put new and existing forms and processes online, so users save time and money and improve productivity.

Another part of the LiquidOffice solution was its electronic forms and graphical workflow, with a modeling and simulation environment that lets users define and test processes. A monitoring and management console provides visibility into business processes, helps enforce compliance, and features comprehensive tracking and auditing capabilities.

Dräger has chosen to become a re-seller and now supplies LiquidOffice under the Dräger brand as Innovian Anesthesia E-Forms. It's offered as an optional add-on module for Innovian.

"When we started looking for a solution to the problem, the only option that gave us the capabilities of a web-based form and the ability to extract patient data from existing databases was LiquidOffice, so it was the logical choice," says Truncer. "What really sold us on LiquidOffice was the fact that it uses what they call Connect Agents. Very often, hospital systems or clinical information systems already being used by the hospital contain information that would be useful to the aesthesia provider. These Connect Agents have the ability to go into these other systems and extract the relevant data."

Dräger worked with their LiquidOffice specialist, Informa Software, who masterminded the back-end integration of the systems, ensuring that the solution was set up correctly and that the Connect Agents point to the correct areas within the customer's Electronic Medical Record to extract the required data.

Informa Software also built a custom Web Portal for Dräger that allows system users to search for patients and/or cases, create new cases, etc. outside of LiquidOffice, and provides a central access point for all of their electronic forms. Informa has recently added functionality to allow data to be pulled from a MediTech database view, translate that information to its Innovian counterpart, and then save it back to Innovian. Innovian Anesthesia E-Forms has so far been sold only in the U.S. and Canada, where it is used by the U.S. Department of Defense, the Veterans Administration Healthcare System and a number of commercial customers.

Benefits

Increased productivity and better care

Offering LiquidOffice branded as E-Forms has given Dräger a valuable addition to its anesthesia portfolio – one that provides a competitive advantage to healthcare providers and helps to improve the level of care that patients receive.

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"Increased productivity is a huge benefit to our customers because they can eliminate redundant steps in their workflow process, and that improves their bottom line," says Truncer. "Through the use of Connect Agents, LiquidOffice can actually prepopulate some of the forms, which is a great time saver. And the ability to turn over more pre-admission testing processes is much more efficient and cost-effective. The fact that the anesthesia provider has that clinical content available to them also reduces the likelihood of scheduled surgical procedures being canceled due to lack of data and again, that equates to an increase in revenues."

Electronic input also reduces the risk of human error, illegibility, misplaced documents, or the confusing use of abbreviations. It also imposes defined processes and confirmation systems that are important for patient safety. Dräger can now ensure that nothing has been missed and that all vital information has been captured. For instance, with more thorough processes in place, a rare life-threatening condition such as malignant hyperpyrexia that is usually triggered by exposure to certain drugs used for general anesthesia, would be accurately documented.

The use of electronic signatures further streamlines the process. The E-Forms module supports digital sign-off by doctors or Certified Registered Nurse Anesthetists (CRNAs), which is an efficient way of approving the perioperative anesthesia plans that document how anesthesia care will be provided.

LiquidOffice electronic forms are enabling Dräger's healthcare customers to create lock-tight, compliant, and auditable processes that accelerate the capture and flow of essential information across the perioperative environment. Costly processing errors are reduced and the solution allows captured information to pass seamlessly to the Innovian Anesthesia information management system for secure access and storage.

"Capturing vital patient information electronically and ensuring that the anesthetist has access to the relevant data is vital for the safety of the patient. OpenText technology allows us to do that."

DAVID TRUNCER, SENIOR MARKETING MANAGER,
IT SOLUTIONS, DRAEGER, INC.

The intuitive web-based user interface supports the capture of admission and pre-operative assessment information from remote locations, such as pre-admission testing facilities, perioperative holding areas, and inpatient care units. Patient data can be entered and displayed from virtually anywhere and at any time, leading to faster, better informed decisions. The information collected is then used to build clinically sound anesthesia plans that support the safety and well-being of patients.

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Informa Software provides business productivity solutions including content management, document imaging LANfax, data capture and business process automation. Informa focuses on three main business solution offerings – software product development, partner solution integration and systems application consulting –, offering the tools, personnel, and business expertise to allow companies to reduce operational costs, manage risk, and maximize productivity.

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