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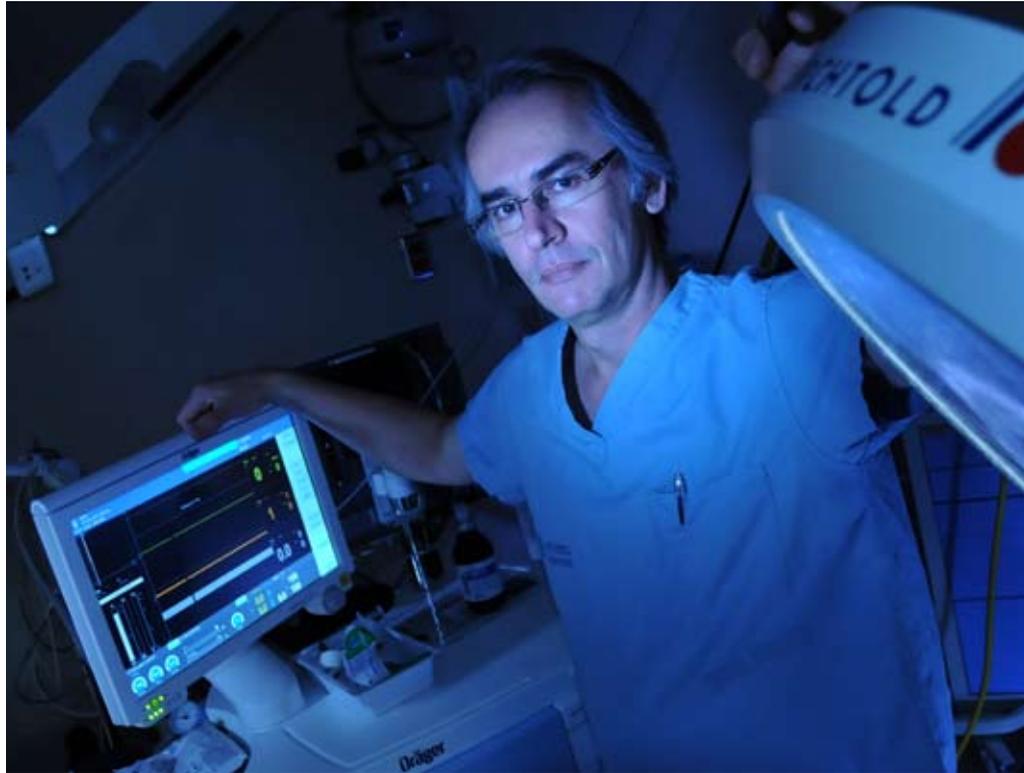
Intuitive anesthesia device gets unanimous vote of approval

If you asked a dozen anesthesiologists for their opinion of a new device, chances are you would get a dozen different responses. “There is always some disagreement within the anesthesia department about who likes what and why,” says Dr. Paul Lokoff, chief of anesthesia services at Markham Stouffville Hospital in Markham, Ont. So when the time came to review and select new anesthesia devices for the hospital’s operating rooms, Dr. Lokoff was ready for some heated debates among his colleagues.

Much to his surprise, the votes were unanimous. After a trial of various devices, all seven staff anesthesiologists and five locums agreed that they preferred the Zeus® Infinity® Empowered (IE) by Dräger. “I think any chief of anesthesia would tell you how rare it is to get everyone to agree that they like the same system,” says Dr. Lokoff.

This past summer, Markham-Stouffville Hospital became the first Canadian installation site for Dräger’s Zeus® IE. Eight units were installed in the hospital’s existing operating rooms, with another five planned for a new expansion in 2013.

The key selection criteria for the new devices included smart design, improved patient outcomes and cost-effectiveness.



Dr. Paul Lokoff, chief of anesthesia services at Markham Stouffville Hospital in Markham, Ont., in an operating room with the new Dräger Zeus® Infinity® Empowered (IE) anesthesia device, which has proven popular with all of the hospital’s staff anesthesiologists and locums.

The selection process took almost two years. Although the operating rooms had been equipped with Dräger equipment in the past, the hospital reviewed devices from all manufacturers. “We were open to anything — we had to look at everything,” says Dr. Lokoff, adding that the key selection criteria included smart design, improved patient outcomes and cost-effectiveness.

Intelligent design

From his first trial with the Zeus® IE, Dr. Lokoff was impressed by the device’s intuitive technology. “Dräger has designed the Zeus® IE to be easy to use. The technology is so well thought out and logical that every step makes sense,” he says.

The Zeus® IE features a large colour monitor that is

fast, intuitive and uncomplicated. The windows-oriented touch screen provides instant access to all relevant parameters, trend data and diagnostic information, as well as online help functions and an intelligent alarm management system. The personalized monitor setup lets users change between display options to suit their needs.

The logical design helps keep training time and costs to a minimum, a particularly important consideration for locums. "We need to make sure that all our anesthesiologists can come in and use our equipment right away, without a big learning curve," says Dr. Lokoff. "Even if someone hasn't had a lot of training on this device or if this technology is different from what they are used to, the user interface is very easy to follow."

The Zeus® IE system goes beyond ease of use and actually supports clinicians in making therapeutic decisions, guiding them through the anesthesia process, both automatically and manually.

"It provides specialized ventilation for adult, pediatric and neonatal patients and allows for spontaneous breathing at any time, which can shorten recovery times," says Dr. Lokoff.

The system's unique turbine-driven TurboVent2 closed-system ventilator allows patients to breathe spontaneously at any time and provides virtually unlimited inspiratory flow, regardless of the ventilation mode. The system automatically administers oxygen, carrier gas and volatile agent, delivering the right amount of anesthesia via direct injection of volatile agents. Patients safely receive the least amount of volatile anaesthetic needed to be effective, thus avoiding overdoses and underdoses caused by system-related limitations.

The special layout of the anesthetic vaporizer as a direct injection allows the anesthetic agent to wash in rapidly while the fresh gas flow remains low. The system's high portion of rebreathing allows a good breathing gas climatization, which can reduce post-operative complications.

In addition to the manually controlled fresh gas dosing option, oxygen, carrier gas and volatile anesthetics can be controlled automatically and targeted accurately, again supporting patient safety. The device automatically compensates for potential leakages.

And unlike traditional bellows-type anesthesia

ventilators, which are often limited in peak flows, the TurboVent2 is designed as a powerful, pressure source ventilator, thereby offering ICU-quality ventilation. As a result, the Zeus® IE eliminates the need to bring in additional devices to handle hard-to-ventilate patients.

Frugal with gas

As the only system that offers a fully closed breathing system capability, the Zeus® IE allows clinicians to simply set targets for each phase of the anesthesia process and let the device calculate a reasonable and effective dose. This provides the most cost-effective anesthesia possible

by keeping gas consumption to an absolute minimum.

"It's like owning a Prius," quips Dr. Lokoff, adding that the cost savings are considerable. "With Zeus® IE, you use significantly less volatile anesthetic agent. That can represent an important savings to the hospital's operating budget."

The Zeus® IE not only uses less anesthetic agent but it also wastes less. "Less gas escapes into the environment with this

device. That's important for the global environment, as all anesthesiologists are aware that anesthesia gases are not friendly to the ozone layer," says Dr. Lokoff.

Added features

The anesthesia team at Markham Stouffville have been using the Zeus® IE devices for several months now, and Dr. Lokoff says he is continuing to discover new reasons to appreciate the technology.

"There are a lot of added features that are very useful. You might not need them every day, but they add up to an improved user experience." He gives the example of the wide range of adjustable ventilation modes that accommodate newborns to adults and even hard-to-ventilate patients.

The unit itself is easy to work around. Its ergonomic design includes features such as a height-adjustable swivel screen and optimized cable management for left or right positioning. An intelligent cable management system provides quick and easy patient-monitor connections, so there are fewer cables, less clutter and faster work processes at the point of care.

"It is clear that Dräger put a lot of thought into this design. Everything flows so well. I would not hesitate to recommend it to another anesthesia department," says Dr. Lokoff. ■

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