



Awarded Design Shifts Focus from Device to Patient

GE Healthcare's next generation transport monitor CARESCAPE ONE is one of the iF Design Award 2019 winners. The monitor was designed to reduce complexity and simplify transport within the hospital. In March 2019, it was awarded by the iF Design jury.

Regulatory requirements are a must but not enough

While medical devices are becoming more intuitive and capable, they are also becoming more complex. All medical devices are subject to a wide array of regulatory requirements, and there is no question about the fact that quality, reliability and safety remain paramount when designing devices that care providers rely on to help save people's lives.

However, to produce real added value to the customer, and to stand out from competition, a modern medical device must do much more than to conform with what is required by the authorities. This is where designers and usability experts step into the picture. In practice, they do so already when the product only exists as a vision - or maybe as a cardboard mock-up.

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About iF Design Award

Each year, iF International Forum Design GmbH organizes one of the world's most celebrated and valued design competitions: the iF Design Award. Recognized as a symbol of design excellence around the world, the iF Design Award welcomed over 6,300 submissions from 52 countries this year. The jury panel consisting of 67 independent design experts evaluates each submission using criteria such as the product's degree of innovation, uniqueness, usability, ergonomics, safety, aesthetics, universal design, as well as brand and target group fit.

Designing CARESCAPE ONE monitor

What is the role of industrial and UX (user experience) designers in the medical device industry and, more specifically, how did GE Healthcare's designers and usability experts approach the task of developing CARESCAPE ONE?

*"As an industrial designer within health technology, I sometimes run into the misconception that my work is about making sure the shape of the product is nice. But in fact, the product is not at the core of what we do. Our work is human-centric", says Design Architect **Xia Lei**, lead designer of CARESCAPE ONE working in GE Healthcare's Global Design Team in Shanghai, China.*

"A product has to look good, obviously, but first and foremost, our task is to provide solutions to simplify the hospital workflow, and for example, to ensure our solutions are intuitive and don't take too much time to learn. And as our products are used in hospitals, one of many important aspects is cleanability. When you look at CARESCAPE ONE, you will see that there are no sharp corners and all connections are very smooth. Although this design makes the monitor look sleek and nice, the main purpose of this is to ensure the device is easy to clean," Xia Lei says.

"Our work is well done, when the monitor allows physicians and nurses to focus on caring for the patient. Industrial design is not only about art, and it is not only about science – it is also very much about empathy."

Xia Lei, Design Architect, GE Healthcare's Global Design Team

UX Designer **Milvi Soosalu** and UX Researcher **Hannu Koskela**, who both work at GE Healthcare in Helsinki, Finland and have both had an important role in the usability design of CARESCAPE ONE, agree with Xia Lei:

"Voice of the customer was crucial when designing CARESCAPE ONE. We conducted several user studies and based on them, tweaked the physical design and user-interface of the monitor. For example, the monitor has eight identical universal USB-connectors, the screen can be locked to prevent unintended touch during transport, and the screen is recessed to provide better protection against drops on the floor – all relevant for the usability of the monitor," Milvi says.

"Also, the user interface of the monitor is graphical and consistent with larger GE monitors. This makes it very easy to use for caregivers who are used to other monitors in the CARESCAPE product family", Hannu adds.



What do customers think of the monitor?

Based on the usability study conducted in the Brest University Hospital in Brest, France users also appreciate the design:

“This device is very intuitive. I did not need training to start using it”, says an OR nurse with 13 years of patient transport experience.

“This monitor will remove” additional stress and allow us to focus on the patient“, says another nurse with 5 years of patient transport experience.

“Great user-interface with large screen and intuitive design. I think that this is a high-quality device”, ED nurse with 13 years of experience.

Patient transport monitors need to be lightweight and small yet equipped with a large display; elegant yet robust; technically advanced and versatile yet easy-to-use. All of this is to provide a superb user experience, but unlike with many consumer electronics, with medical devices a superb user experience means that a user does not need to think about the device that much.

“Our work is well done, when the monitor allows physicians and nurses to focus on caring for the patient. Industrial design is not only about art, and it is not only about science – it is also very much about empathy. The impact of these three aspects manifest themselves in CARESCAPE ONE, and the design award makes me even prouder of this great monitor”, Xia Lei points out.

“This monitor will remove additional stress and allow us to focus on the patient.”

OR nurse, 5 years of patient transport experience

“This device is very intuitive. I did not need training to start using it.”

OR nurse, 13 years of patient transport experience





Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit www.gehealthcare.com/promotional-locations.

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CARESCAPE ONE is not available for sale in USA and has not been cleared by FDA.

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