2011 Medical Design Excellence Award Winners - Critical-Care and Emergency Medicine Products

EV1000 Clinical Patient Monitoring Platform

The EV1000 clinical platform is a patient-monitoring platform that is intended to show clinicians the physiologic status of their patients in critical-care settings such as the OR and the ICU. Manufactured and submitted by Edwards Lifesciences Corporation (Irvine, CA); supply and design credit to Patton Design (Irvine, CA)

Edwards

Edwards Lifesciences Corporation EV1000 Critical Care Platform Gets FDA Clearance in July 2011

Patton Design and Edwards Lidesciences Corporation creates the most advanced GUI [Graphic User Interface] in the heart monitoring industry. The physiologic status of the patient has been created in an entirely new, intuitive and meaningful way. EV1000 clinical platform offers scalability and adaptability in both the OR and ICU.


2.1
CI
22
SVV
31
SVI
64
SvO2


2.1
CI
22
SVV
31
SVI
64
SvO2


2.4
3.6
1.2
4.8
3.6
↑38% (10 min)
0.0
CI
6.0
L/min/m²
16
24
8
32
11
↓63% (10 min)
0
SVV
40
%
1800
2200
1400
2600
1668
↑38% (10 min)
1000
SVRI
3000
dyne-s-m²/cm⁵
63
75
51
87
76
6% (10 min)
3.9
ScvO2
99
%

The course of a general anesthetic has often been likened to an airplane flight – the induction (takeoff), emergence (landing), and whatever turbulence you encounter along the way. Now the "metaphorical cockpit" just became incredibly advanced with a new Edwards Lifesciences Corporation EV1000 clinical platform monitoring system, which just received FDA clearance, it presents the status of the patient in an "entirely new, intuitive and meaningful way."

The system integrates the FloTrac arterial waveform analyzer and PreSep/PediaSat oximetry catheters, along with the VolumeView transpulmonary thermodilution method to calculate and display a wide array of physiological variables to help diagnosis and treat critical illness.

The VolumeView looks especially interesting, touting to calculate the following:

Hemodynamic Parameters

- CO – Calibrated Cardiac Output
- SV – Calibrated Stroke Volume
- SVR – Systemic Vascular Resistance
- SVV – Stroke Volume Variation
- SVI – Stroke Volume Index

Volumetric Parameters

- EVLW – Extravascular Lung Water
- PVPI – Pulmonary Vascular Permeability Index
- GEDV – Global End Diastolic Volume
- GEF – Global Ejection Fraction