Noninvasive, Continuous Hemodynamic Monitoring

ccNexfin System

Providing More Clarity in More Patients
A great number of surgical patients, many of whom are at risk of hemodynamic instability, did not have the option to benefit from hemodynamic optimization using advanced hemodynamic parameters.

There is extensive evidence that flow-directed therapies for hemodynamic optimization improve patient outcomes. To date, however, primarily patients connected to an arterial catheter could benefit from such treatment protocols. In the US, only 16% of the surgical patients get an intra-arterial line primarily due to the associated complications of invasive lines.1

ccNexfin system offers noninvasive advanced hemodynamic monitoring and guidance for optimization strategies, preventing unnecessary complications that affect quality of care while minimizing healthcare costs.2-7

More Clarity in More Patients

ccNexfin system offers the advanced physiological parameters that are necessary to help clinicians with the early detection of hemodynamic deterioration and for hemodynamic management. It is suited for surgical patients who are at risk of developing hemodynamic instability, or who may benefit from perioperative hemodynamic optimization.

The patients who may benefit from ccNexfin system and advanced hemodynamic monitoring, but may not receive an arterial catheter, include:1,2,6,9

- Elderly patients
- Obese patients
- Pregnant women

ccNexfin system may have many benefits across low-risk and moderate-risk procedures including:1,2,6,7,9

- Major general surgery – including oncological procedures
- Thoracic surgery – one-lung ventilation, induced pneumothorax
- Orthopedic surgery – fractured hip, joint replacement, spine
- Bariatric surgery
- Obstetric and extensive gynecological surgery
- Urology - radical and/or high risk of bleeding procedures

Immediate and Reliable Hemodynamic Picture

ccNexfin system provides a hemodynamic overview within two minutes of starting and connects to the patient by simply wrapping an inflatable cuff around the finger.2 The pulsating finger artery is “clamped” by applying equivalent counter pressure that results in a pressure waveform. This is how ccNexfin system provides beat-to-beat, continuous blood pressure in a totally noninvasive manner, thus without the need for arterial cannulation. The resulting blood pressure waveform serves as the basis for the measurement of continuous cardiac output.

ccNexfin system is a noninvasive hemodynamic monitor which provides real-time, beat-to-beat information on cardiac output (CO), blood pressure (BP), and other hemodynamic parameters. Backed by over 30 years of research and development on noninvasive cardiac output and hemodynamic monitoring technology, ccNexfin system has been validated in a number of studies.5,7,9,10

Immediate and Reliable Hemodynamic Picture

ccNexfin system measures real-time continuous cardiac output and other hemodynamic parameters by a pulse contour method (Nexfin CO-Trek), which is based on the systolic pressure area and a physiological three-element Windkessel model for cardiac afterload.4
ccNexfin System

ccNexfin system offers the physiological parameters that guide clinicians in patient hemodynamic optimization strategies in a continuous, real-time and totally noninvasive manner.

System Features

- Touchscreen lightweight monitor
- Finger cuff – available in 3 sizes
- Heart Reference System – allowing free movement of hand during measurement
- USB data transfer
- Intuitive monitoring screens – trend and numerical display, review during measurement, marker settings, customized dashboards, advanced reporting, averaging function

Monitored Parameters

<table>
<thead>
<tr>
<th>TYPE</th>
<th>PARAMETERS</th>
<th>LABEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemodynamics</td>
<td>Cardiac Output / Index</td>
<td>CO / CI</td>
</tr>
<tr>
<td></td>
<td>Systolic / Diastolic Blood Pressure</td>
<td>Sys / Dia</td>
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<tr>
<td></td>
<td>Mean Arterial Pressure</td>
<td>MAP</td>
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<tr>
<td></td>
<td>Heart Rate</td>
<td>HR</td>
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<tr>
<td></td>
<td>Stroke Volume</td>
<td>SV</td>
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<tr>
<td></td>
<td>Stroke Volume Variation</td>
<td>SVV</td>
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<tr>
<td></td>
<td>Pulse Pressure Variation</td>
<td>PPV</td>
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<tr>
<td></td>
<td>Systemic Vascular Resistance</td>
<td>SVR</td>
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</tbody>
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Helping to advance the care of the critically ill for 40 years, Edwards Lifesciences seeks to provide the valuable information you need, the moment you need it. Through continuing collaboration with you, ongoing education and our never-ending quest for advancement, our goal is to deliver clarity in every moment.

Visit www.Edwards.com/ccNexfin to learn more

References


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Edwards Lifesciences devices placed on the European market meeting the essential requirements referred to in Article 3 of the Medical Device Directive 93/42/EEC bear the CE marking of conformity.

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