Optimise your patients' hemodynamic status

- Non Invasive, Minimally Invasive, Calibrated, Depth of Anesthesia

Parameters include CO, SV, SVV, SVR, DO₂i

Clinically proven with over 200 Clinical Papers

Operating Theatre, ICU, Emergency Department and Other High Risk Areas

UK Brochure

www.lidco.com
The LiDCO unity monitor is a single platform which combines both the LiDCOplus and LiDCORapid functions. This provides a single solution to monitoring needs throughout the hospital.

- The LiDCO unity can be used non invasively, minimally invasively with a radial arterial line and can be calibrated with the lithium dilution technique.
- It is the only technology available that can be calibrated with a standard radial arterial line and without the need for a central line.
- The clinician can choose which mode is most appropriate to the clinical situation.
- The LiDCO unity uses the PulseCO™ algorithm which converts blood pressure to its constituent parts of flow (CO, SV) and resistance (SVR).
- The PulseCO™ algorithm is scaled to each patient with either the lithium dilution technique or the nomogram using age, height and weight.

Features

- 3 in 1 platform for monitoring in any clinical situation
- Quick & easy set up
- Non invasive or minimally invasive solution
- Beat to beat hemodynamic parameters (Cl, SVI, SVV, PPV, SVRI)
- Continuous blood pressure monitoring (MAP, SBP, DBP)
- Clear and intuitive customisable information screens
- Ideal solution for GDFI and hemodynamic monitoring of the unstable patients

CONTACT

0207 749 1500  www.lidco.com

Hemodynamic Monitoring for the entire patient pathway

From the ED to the OR to Critical Care and other High Care departments. LiDCO unity has the flexibility to enable continuity of measurement across patient acuity levels.

Emergency Department

LiDCO is used in the emergency department to assist with the early identification of sepsis and the resuscitation of trauma patients
- Evaluate hemodynamic status
- Exclude haemorrhage
- Early hypovolemia diagnosis
- Guide fluid resuscitation
- Early identification of Sepsis
- Guide fluid titration of inotropes

Operating Room

The goal in the OR is to optimise fluid and drug therapy prior and during surgery. Successful hemodynamic monitoring in OR reduces the resources need for high-dependency (ICU).
- Switch seamlessly between Non Invasive and Minimally Invasive
- Measure Depth of Anesthesia using BIS
- Elective bowel surgery, Aortic aneurism, Vascular surgery

ICU

Recent guidelines published by a Task Force of the ESICM and by the Surviving Sepsis Campaign highlight a need for continuous advanced hemodynamic measurements to guide fluid and drug management.
- Can be calibrated with an existing arterial line and peripheral venous access
- Monitoring can be started on admission
- Assess if the patient is fluid responsive
- Start appropriate drug therapy

Other High Risk Areas

LiDCO hemodynamic monitoring systems are used within other high-risk areas. The goal in other high-risk areas is to provide continuous blood pressure monitoring during high-risk procedures such as
- Emergency caesareans
- Maternity
- Cath Lab
- Burns
- Transplant
- Other high dependent areas
LiDCO® Unity

Minimally Invasive

- Plug and play from existing vital signs monitor
- Arterial line input without needing to change your pressure transducer
- Validated PulseCO™ algorithm reliably tracks hemodynamic changes in the presence of inotropes and vasoactive drugs
- Beat-to-beat analysis and display of hemodynamic parameters

LiDCO® rapid

Non Invasive

- Quick and easy to set-up
- Real-time continuous non invasive blood pressure (CNAP™) and hemodynamic parameters
- Proven to be as effective as an arterial line to monitor fluids when used with the PulseCO™ algorithm
- Dual finger sensor with automatic finger switching for safer non invasive use
- Ability to calibrate with a BP cuff measurement

LiDCO® plus

Depth of Anesthesia

- Integrated into the LiDCO
- Enables clinicians to titrate anesthesia with its hemodynamic effects
- Stops over-anesthetising, nor under-anesthetising
- Stops dramatic falls in blood pressure and flow

LiDCO® BIS

Calibrate

- Continuous real-time measurement with lower risk and high precision
- Calibrate using LiDCO Lithium technology or another absolute cardiac output measurement value
- Reduced infection risk with less invasive catheters with use of existing arterial lines and peripheral venous access

LiDCO CNAP

One Disposable

- Switch monitoring seamlessly with one disposable Smartcard
- Smartcard carries key patient information between different LiDCO Monitors to ease set-up and monitoring
Screen Guide

Designed to support your clinical decision making

**Long Term Trend**
Easy interpretation of trends from the start of monitoring, which can be customised to the parameters you need

**Short Term Trend**
2-minute window for greater focus on the immediate response to interventions

**Protocols**
Decision support can be customised to individual hospitals

**Event Response**
Marking and monitoring events like a fluid challenge

**Preload Response**
Window displays preload response values or volume status indicators of: Pulse Pressure Variation (PPV%) and Stroke Volume Variation (SVV%)

**Numeric data display to assist in recording values for routine clinical charts. The chart display displays all absolute and index values.**

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### Who should attend?

- Critical Care Nurses
- Professional Development Nurses
- Junior Doctors

### LiDCOplus Cardiac Output Monitoring - Royal College of Nursing Accredited

A Royal College of Nursing accredited study day for Cardiac Output Monitoring.

### Topics Include:

- Anatomy and physiology of cardiac output
- Relevant clinical research
- Practical, hands-on sessions with simulators
- Competency based assessment

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### Hemodynamic Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Equation</th>
<th>Normal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke Volume (SV)</td>
<td>( \frac{CO}{HR \times 1000} )</td>
<td>60 - 100 ml/beat</td>
</tr>
<tr>
<td>Cardiac Index (CI)</td>
<td>( \frac{CO}{BSA} )</td>
<td>2.5 - 4.0 l/min/m²</td>
</tr>
<tr>
<td>Left Atrial Pressure (LAP)</td>
<td></td>
<td>6 - 12 mmHg</td>
</tr>
<tr>
<td>Mean Pulmonary Artery Pressure (MPAP)</td>
<td>( PAP + (2 \times PDA) )</td>
<td>10 - 20 mmHg</td>
</tr>
<tr>
<td>Pulmonary Artery Wedge Pressure (PAWP)</td>
<td>( PAP + (2 \times PDA) )</td>
<td>6 - 12 mmHg</td>
</tr>
<tr>
<td>Systolic Blood Pressure (SBP)</td>
<td></td>
<td>90 - 140 mmHg</td>
</tr>
<tr>
<td>Diastolic Blood Pressure (DBP)</td>
<td></td>
<td>&gt; 60 mmHg</td>
</tr>
</tbody>
</table>

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### LiDCO Training Programmes

LiDCO Training Programmes successfully utilise our monitor in the care setting. Nurses will have the practical skills, confidence, and knowledge to use the equipment along with the tools necessary to facilitate their colleagues’ development. Upon successful completion, delegates will receive an RCN certificate and knowledge pack to take back to their units where they can be a great resource for the rest of the team.
Meta-Analysis

15 meta-analysis confirm clinical benefit of hemodynamic monitoring

We have been using LiDCCO products since 2010 within our trust. The device is safe, accurate and easy to use and can be set up within 5 minutes by trained staff. It has the diversity to be used on a conscious, preoperative, perioperative and postoperative patients.

The support received by LiDCCO is first class and our registered Nurses have benefited from RCN accredited study day as well as ad hoc training sessions.

Tameside and Glossop Integrated Care NHS Foundation Trust

What Our Customers Say...

We have been using LiDCCO plus regularly on septic patients, those with refractory hypotension or those with complex fluid balance management.

We encourage the use of LiDCCO to be nurse led on the unit and have invested a great deal of time in training staff on monitoring and calibration. We have received fantastic support from the LiDCCO rep who has been key in delivering training and has been particularly helpful in developing an understanding of troubleshooting. She has been very flexible and understands the fluctuating needs of the unit.

I encourage the use of LiDCCO at the bedside as I have found it to be helpful in guiding treatment and informing the clinical picture.

Royal Marsden Hospital

The new LiDCCOunity is a welcome upgrade on our past equipment. The new LiDCCOunity benefits from an aesthetic overhaul and now looks like equipment one would expect to find in the 21st century ICU. The touch screen is much improved from the LiDCCOplus and the overall layout is better. One great leap forward is the addition of a battery; no more lost data or calibration factors due to inadvertent power loss!

The software upgrade has improved functionality and usability. It is much more intuitive to use as a beginner, and easier to navigate for the expert. The improved range and choice of waveforms and data on the main screen is a welcome addition. The calibration process is a vast improvement on the old LiDCCOplus system. Information not required by the end point user has been removed, and a cleaner system of determining where any problems might be has been incorporated. Overall, I am pleased we are using the new LiDCCOunity. We have had great support from our LiDCCO representative, and we also had some input during the trial phase when LiDCCO was in the testing phase for the LiDCCOunity.

University Hospital Southampton NHS Foundation Trust

References

<table>
<thead>
<tr>
<th>References</th>
<th>Reduction in</th>
<th>Average odd or risk ratios (confidence interval)</th>
<th>Number of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rippelius J, Espinosa A, Martinez-Hurtado M, et al.</td>
<td>Mortality rate</td>
<td>0.63 (CI: 0.42-0.94)</td>
<td>12</td>
</tr>
<tr>
<td>Concorso T, et al.</td>
<td>Acute kidney injury</td>
<td>0.67 (0.45-0.96)</td>
<td>23</td>
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<tr>
<td>Surgul ST, do Nascimento Jr. P.</td>
<td>Pneumonia</td>
<td>0.74 (0.57-0.96)</td>
<td>32</td>
</tr>
<tr>
<td>Aya HD, Cecconii M, Hamilton MA, et al.</td>
<td>Length of stay</td>
<td>-2.44 (CI: -4.02 to -0.84)</td>
<td>5</td>
</tr>
<tr>
<td>Phan T, Tam H, Herold AG, et al.</td>
<td>Cardiovascular complications</td>
<td>-3.34 (CI: -1.91 to -1.77)</td>
<td>9</td>
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<tr>
<td>Ankaliman M, Corcoran C, Hamilton MA, et al.</td>
<td>Arrhythmias</td>
<td>0.54 (CI: 0.38-0.78)</td>
<td>22</td>
</tr>
<tr>
<td>Cecconii M, Corcoran C, Ankaliman M, et al.</td>
<td>Acute kidney injury</td>
<td>0.71 (0.57-0.93)</td>
<td>31</td>
</tr>
<tr>
<td>Dallino L, Giglio MT, Puntini F, Marucci M, Bionda N.</td>
<td>Surgical site infection</td>
<td>0.58 (0.46-0.74)</td>
<td>26</td>
</tr>
<tr>
<td>Grocott MP, Dushianthan A, Hamiltom MA, et al.</td>
<td>Surgical site infection</td>
<td>0.58 (0.35-0.98)</td>
<td>67</td>
</tr>
<tr>
<td>Sinavas S, Taylor MH, Sammour T, et al.</td>
<td>Acute kidney injury</td>
<td>0.55 (0.35-0.85)</td>
<td>12</td>
</tr>
<tr>
<td>Hamilton MA, Cecconii M, Rhodes A.</td>
<td>Total mortality rate</td>
<td>0.68 (0.58-0.78)</td>
<td></td>
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<tr>
<td>Bionda N, Giglio MT, Marucci M, et al.</td>
<td>Acute kidney injury</td>
<td>0.64 (0.50-0.83)</td>
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<td>Posae M, Willen M, Geewe J., Ramay G.</td>
<td>Total mortality rate</td>
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<td>Mortality rate</td>
<td>0.61 (0.46-0.81)</td>
<td>30</td>
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<tr>
<td>Bondgaard-Nielsen M, Holte K, Secher NH, et al.</td>
<td>Total mortality rate</td>
<td>0.29 (0.17-0.50)</td>
<td>16</td>
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Find Out More www.lidco.com
Contact us to arrange

✓ Product Evaluations ✓ Adoption ✓ Training ✓ Education