Capture every aspect of hemodynamic status

Edwards Advanced Technology Swan-Ganz Catheters
Hemodynamic Monitoring Systems with Continuous CO, SvO₂, EDV, RVEF, SVR, and SV for Optimal Patient Care
The most complete picture of hemodynamic performance

Oxygen delivery is the key to patient survival

Oxygen Flow-Consumption Diagram

- **SvO₂**: 60%-80%
  - Oxygen Delivery: \( DO_2 = CaO_2 \times CO \times 10 \)
    - 550-1150 ml/min
  - Oxygen Consumption: \( VO_2 \)
    - 200-250 ml/min

- **Cardiac Output**
  - CO: 4-8 l/min

- **Stroke Volume**
  - 60-100 ml

- **Heart Rate**
  - 60-100 bpm

- **Hemoglobin**
  - Hgb 12-16 g/dL
  - Hct 35%-45%

- **Oxygenation**
  - \( SaO_2 \) 98%
  - \( PaO_2 > 80 \) mmHg

- **Arterial Oxygen Content**
  - \( CaO_2 = (0.0138 \times Hgb \times SaO_2) + 0.0021 \times PaO_2 \)

- **Preload**
  - RVEDV: 100-160 ml (RVEF dependent)
  - PAOP: 6-12 mmHg
  - PADP: 8-15 mmHg
  - CVP: 2-6 mmHg

- **Afterload**
  - SVR: 800-1200 dynes sec/cm²
  - PVR: < 250 dynes sec/cm²

- **Contractility**
  - RVEF: 40%-60%
  - RVSWI: 5-10 gm-m²/beat
  - SVI: 3.3-4.7 m³/beat

*Swan-Ganz CCO Catheter
Model: 774HF75

This complete picture only available with the Advanced Technology Catheter System*
Precision-guided therapy reduces costs, recovery time and morbidity

More precise information, more quickly, means more effective decisions and better patient care

Advanced Technology Catheter System information is needed to zero in on the elements of cardiac dysfunction.

- Is the patient wet or dry?
- Do I give volume?
- Is there adequate contractility?
- Do I give inotropes?

Answers to difficult clinical questions like these help physicians to restore a normotensive state more rapidly, thus reducing morbidity and length-of-stay costs.

Advanced Technology Pulmonary Artery Catheters:
For patients in need of precision-guided hemodynamic therapy for:
- Chest trauma
- Septic shock
- ARDS
- Cardiac surgery
- Pulmonary hypertension
- CHF
- Ventilator patients with PEEP
- High-risk surgery
- Surgical pre-optimization

Advanced Technology Catheters (used with the Edwards Vigilance Monitors) offer a range of hemodynamic parameters not available on the basic pulmonary artery catheter.*

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Derived Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>SvO₂ (Mixed Venous Oxygen Saturation)</td>
<td>Tissue oxygenation</td>
</tr>
<tr>
<td>CEDV (Continuous End Diastolic Volume)</td>
<td>Preload</td>
</tr>
<tr>
<td>SVR (Systemic Vascular Resistance)</td>
<td>Afterload</td>
</tr>
<tr>
<td>CCO (Continuous Cardiac Output)</td>
<td>Contractility</td>
</tr>
<tr>
<td>SV (Stroke Volume)</td>
<td>Contractility</td>
</tr>
<tr>
<td>RVEF (RV Ejection Fraction)</td>
<td>Contractility</td>
</tr>
</tbody>
</table>

*Basic pulmonary artery catheters are limited to Intermittent Cardiac Output and PCWP, a pressure reflection of ventricular volumes.
Introducing the Edwards Vigilance II Monitor
An integral part of Edwards Advanced Technology Hemodynamic Monitoring System

- Continuous CO, SvO₂, EDV, SVR, and other measured and derived parameters are presented on customized displays selected by the clinician.

- Onscreen, customized trend, data relationship, and stat displays provide a complete picture of blood flow and tissue oxygenation for precision patient management.

- Interface with the bedside monitor for convenience and display of additional measured and derived parameters such as continuous SVR, DO₂, DO₂I, VO₂, VO₂I, O₂EI, O₂ER, and VQI.

- The Vigilance II Monitor is the ideal clinical tool for teaching the principles of advanced hemodynamic monitoring to the clinical staff.
Vital information for precision-guided therapy

Simplify complex information using customized displays

Complex cases require more than basic monitoring. The Vigilance II Monitor gives you the ability to present complex hemodynamic data in a simplified way to paint a clearer picture of the patient’s hemodynamic status.

Four primary continuous display windows with corresponding color-coded trend plot
- Choose 4 of 10 available parameters
- Color-coded plot lines correspond with numeric values
- Scroll back through historical data using time/date and event markers

Data relationship plot compares any 2 of 21 available parameters
- Use the Split Screen setting to show continuous data relationships in Frank-Starling curve format
- Simplify complex data to get a clearer picture of hemodynamic performance

Small, secondary continuous display window
- Show up to 8 additional measured or derived parameters
- Up to 4 data sets can be customized and selected for display on demand

Split-screen STAT box display window
- Shows fast trend estimates of CCO/CCI, EDV/EDVI

Comprehensive Value Assessment and Product Trial

It’s rare to find a technology that helps you deliver improved patient care in a cost-effective manner. Follow these simple steps for a comprehensive value assessment and product trial, and see if Advanced Hemodynamic Monitoring is right for your facility.

1. Identify possible clinical candidates for Advanced Technology Monitoring (CHF, chest trauma, septic shock, ARDS, cardiac surgery, ventilator patients with PEEP, pulmonary hypertension, abdominal compartment syndrome, etc.).

2. Determine the Advanced Technology catheter(s) that will best fit your clinical needs.

3. Have your Edwards sales representative prepare a Value Analysis report based upon the unique needs of your facility.

4. Schedule an Advanced Technology Monitoring in-service and education presentation for both nurses and physicians.

5. Complete a courtesy product trial of the Advanced Technology Monitoring System.

6. Ask your Edwards sales representative for a formal price quote.
# Edwards Advanced Technology Catheter System Specifications

## Advanced Technology Catheters — Continuous Hemodynamic Monitoring

<table>
<thead>
<tr>
<th>Catheter Model Number</th>
<th>Lumens</th>
<th>Length (cm)</th>
<th>PAP/PAWP</th>
<th>Proximal Injectate Port</th>
<th>Infusion VIP Ports</th>
<th>SvO₂</th>
<th>Continuous</th>
<th>French Size</th>
<th>mm</th>
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</thead>
<tbody>
<tr>
<td>CCO</td>
<td>139HF75</td>
<td>6</td>
<td>110</td>
<td>•</td>
<td>26 cm</td>
<td>30 cm</td>
<td>•</td>
<td>8 or 8.5</td>
<td>2.7 or 2.8</td>
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<tr>
<td>CCOMbo</td>
<td>744HF75</td>
<td>6</td>
<td>110</td>
<td>•</td>
<td>26 cm</td>
<td>•</td>
<td>8.5 or 9</td>
<td>2.8 or 3</td>
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<tr>
<td>CCOMbo/VIP</td>
<td>746HF8</td>
<td>7</td>
<td>110</td>
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<td>30 cm</td>
<td>•</td>
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<tr>
<td>SvO₂</td>
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**CAUTION:** Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information.

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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