

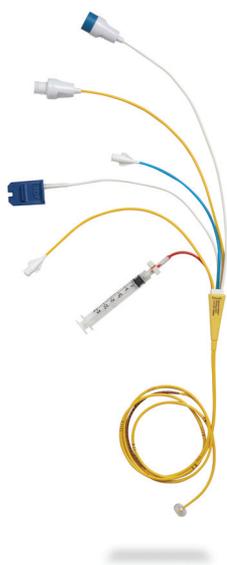
RVEDV CCO  
RVEF  
SvO<sub>2</sub>

A comprehensive  
hemodynamic  
profile to guide your  
treatment strategy

**Swan-Ganz**  
Advanced Technology Pulmonary Artery Catheter



# One catheter. Continuous parameters on three major integrated elements – flow, pressure, oxygen delivery and consumption – for a comprehensive hemodynamic profile when used with a compatible cardiac output monitor.

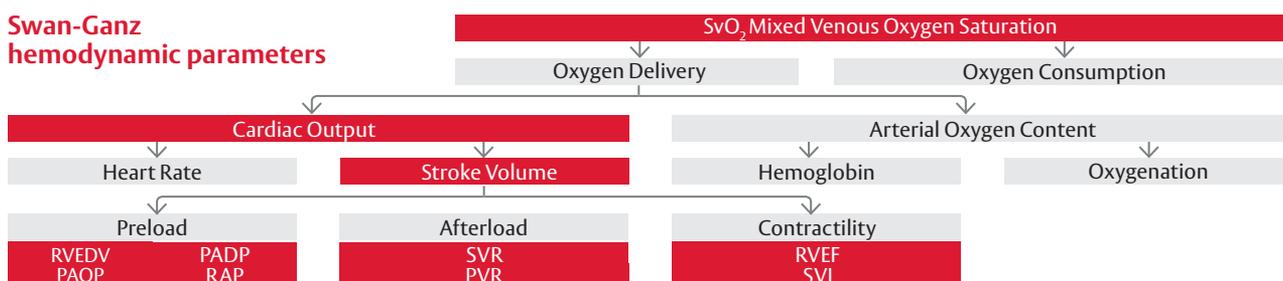


The Swan-Ganz pulmonary artery catheter gives you a comprehensive hemodynamic profile delivered by a single monitoring solution when used with a compatible cardiac output monitor. It allows you to continually assess flow, pressure and oxygen delivery and consumption, to assist your early evaluation. For a continuous view of cardiac function that can enable earlier intervention in your critically complex patients, choose the parameters that best suit your clinical approach and your patient’s need.

## Target complex patient conditions

Swan-Ganz advanced technology pulmonary artery catheters offer a comprehensive hemodynamic profile delivered by a single catheter to help clinicians assess cardiovascular function and guide treatment decisions.<sup>1</sup> Advanced hemodynamic parameters provided include continuous cardiac output (CCO) and mixed venous oximetry (SvO<sub>2</sub>), in addition to right ventricular ejection fraction (RVEF) and right ventricular end diastolic volume (RVEDV), to allow continuous monitoring of the balance of oxygen delivery and consumption. Swan-Ganz pulmonary artery catheters provide a high level of monitoring by delivering a comprehensive hemodynamic profile, as indicated by the parameters highlighted below.

## Swan-Ganz hemodynamic parameters



## SvO<sub>2</sub> mixed venous oxygen saturation

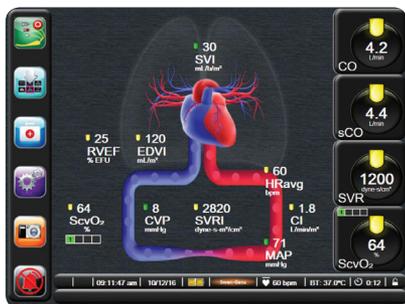
Swan-Ganz pulmonary artery catheters provide continuous monitoring of SvO<sub>2</sub> – a global indicator of oxygen delivery and consumption. SvO<sub>2</sub> is a sensitive indicator of the patient’s status and generally precedes other indications of cardiopulmonary instability.

Since SvO<sub>2</sub> is considered one of the earliest indicators of a threat to tissue oxygenation,<sup>2,3</sup> continuous SvO<sub>2</sub> monitoring may allow diagnostic and therapeutic decisions to be made earlier in the patient’s clinical course.

## Continuous hemodynamic parameters

SvO <sub>2</sub>	SV
CCO	SVR
RAP	RVEDV
PADP	RVEF

## HemoSphere advanced monitoring platform



Visual clinical support

## Across care settings

### Throughout the continuum of care

Your surgical team can hemodynamically optimize a complex patient in the OR. After hand-off, ICU clinicians will have the same access to a continuous and comprehensive hemodynamic profile to help guide post-operative management and therapy.

Advanced technology Swan-Ganz catheters can be used to accurately monitor patients in the OR and into the ICU to ensure the perioperative team has access to actionable information about the patient's current physiologic status.

### Swan-Ganz catheters help guide hemodynamic therapy for cardiac surgical procedures and conditions including:

- Coronary Artery Bypass Graft
- Aortic Valve Replacement/Repair
- Mitral Valve Replacement/Repair
- Aortic Valve Conduit
- Aortic Arch Replacement
- Cardiogenic Shock
- Acute Mitral Regurgitation
- Ventricular Septal Rupture
- Pulmonary Artery Hypertension

## Hypothetical case history #1

### Demonstration continuum of care\*

Patient A is admitted to your ICU postoperatively after a difficult 3-vessel CABG, AVR. Although doing well, he is noted to quickly decompensate. His BP drops to 90 systolic, his PAWP is 29, and his CI decreases to 1.5. You give fluid and inotropic support, yet no improvement is seen. As you call the surgeon, you learn the LIMA harvest had technical difficulties. When echo confirms the anterior wall of the heart is not functioning well, Patient A is taken back to the operating room where the LIMA/LAD revascularization had clotted. Blood flow is restored and the patient's heart is now functioning appropriately. **Swan-Ganz catheter measurements aided the clinician to determine that there was acute dysfunction.**

## Hypothetical case history #2

### Significance of hemodynamic measurements\*

Patient B, a 67-year-old patient with a history of severe CAD and COPD, has undergone a technically difficult 4-vessel CABG. She was taken back to the operating room for bleeding, and is now ventilated in the ICU. You want to determine if Patient B can be successfully weaned from mechanical ventilation. Her heart appears to be functioning appropriately, but the SvO<sub>2</sub> remains 61% as she is weaned from mechanical ventilation. A low SvO<sub>2</sub> in the face of adequate cardiac function can be a predictor of extubation failure that requires re-intubation. What information will help you optimize the patient's pulmonary status? **The Swan-Ganz catheter measurements of key hemodynamic parameters can aid your assessment of the situation to help you define a tailored therapy solution.**

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# Enabling you to make more informed patient management decisions

The Swan-Ganz pulmonary artery catheter gives you a comprehensive hemodynamic profile in a single device to guide treatment strategy. For a continuous view of cardiac function that can enable earlier intervention, choose the parameters that best suit your clinical approach and your patient's need.

## Swan-Ganz advanced technology catheters

Model	Description	French Size	Length (cm)	Lumens
139F75	Continuous cardiac output VIP (CCO + VIP lumen)	7.5	110	3
177F75N	Continuous cardiac output RVEDV/VIP (CCO + RVEDV + VIP lumen)	7.5	110	3
744F75	CCOmb (CCO + SvO <sub>2</sub> )	7.5	110	2
774F75	CCOmb RVEDV (CCO + SvO <sub>2</sub> + RVEDV)	7.5	110	2
746F8	CCOmb VIP (CCO + SvO <sub>2</sub> + VIP lumen)	8	110	3
777F8	CCOmb RVEDV/VIP (CCO + SvO <sub>2</sub> + RVEDV + VIP lumen)	8	110	3

## HemoSphere advanced monitoring platform



The HemoSphere advanced monitor reimagines the way you see, experience and interact with hemodynamic parameters.

With a choice of visual clinical support screens, high-quality graphics and an intuitive touchscreen, the HemoSphere advanced monitoring platform – offering seamless compatibility with the Swan-Ganz pulmonary catheters and Edwards oximetry catheters – opens a whole new dimension in patient information delivery. See and experience meaningful insights into your patient's physiologic status today.

**Know more. Know now.**

Contact your Edwards representative or visit [Edwards.com/ecce](http://Edwards.com/ecce) to integrate Edwards Lifesciences professional educational materials into your hospital's learning system.

**For over 40 years, Edwards Lifesciences has been helping you make proactive clinical decisions to advance the care of surgical, critical care, and emergency department patients.**

Through ongoing collaboration with our clinicians, ongoing education and our never-ending quest for innovation, Edwards continues to develop smart hemodynamic management solutions that enable proactive decision support.

**For professional use. CAUTION: Federal (United States) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions and adverse events.**

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

### References

1. When used with a compatible monitoring platform
2. Laedwig, Emma & Lewis, Peter A. Central venous oxygen saturation monitoring. *British Journal of Cardiac Nursing*, 2009. 4(2): p. 75-79
3. Pearse, R.M., Rhodes, A. Mixed and central venous oxygen saturation. *Yearbook of Intensive Care and Emergency Medicine*, 2005. p. 592-602

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