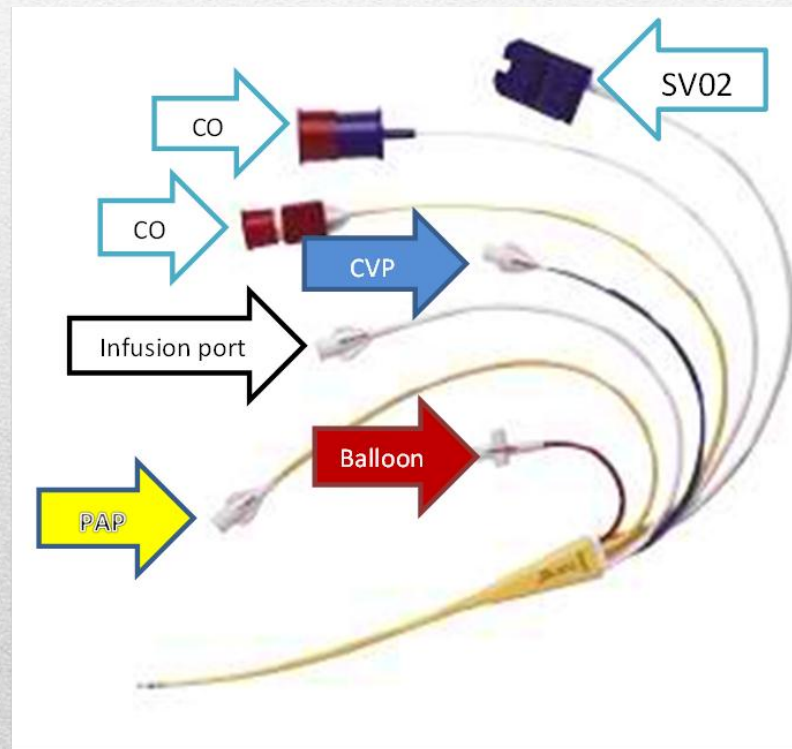


Advanced Technology Swan-Ganz Catheter

Advanced Technology Swan-Ganz Catheter

- CCO with better estimation of EDVI (closer to stroke volume)



- Advanced Technology Swan-Ganz Catheter

Hemodynamics

Color	Location	Function
Yellow	Distal	Monitors PA pressure
Blue	Proximal	Monitors CVP, used for CO injectate fluid
Red	Balloon Valve	Used to obtain the PWAP and to float the SWAN.
White	Additional RA lumen	Infusion, medication & Fluids
Gray *Only on manual SWAN	Additional Lumen	Infusion of medication & Fluids

Advanced Technology Swan-Ganz Catheter Set-up

- Obtain ABG with Hbg
- Equipment Needed
 - Vigilance II monitor including:
 - Optimal Module cable
 - Black vuelink box
 - Black vuelink cable
 - Swan Ganz Catheter
 - Four Normal Saline (NaCl) Flushes

Advanced Technology Swan-Ganz Catheter Set-up

This is an EKG slave cable. This cable connects to the monitor and the back of the Vigilance II monitor.



Advanced Technology Swan-Ganz Catheter Set-up

The red port of the slave cable goes to the side of the Phillips monitor.



Advanced Technology Swan-Ganz Catheter Set-up

The black port of the slave cable goes to the back of the Vigilance II monitor.



Advanced Technology Swan-Ganz Catheter Set-up

This is the Vuelink cable.



Advanced Technology Swan-Ganz Catheter Set-up

The Vuelink cable connects to the black Vuelink box as shown below.



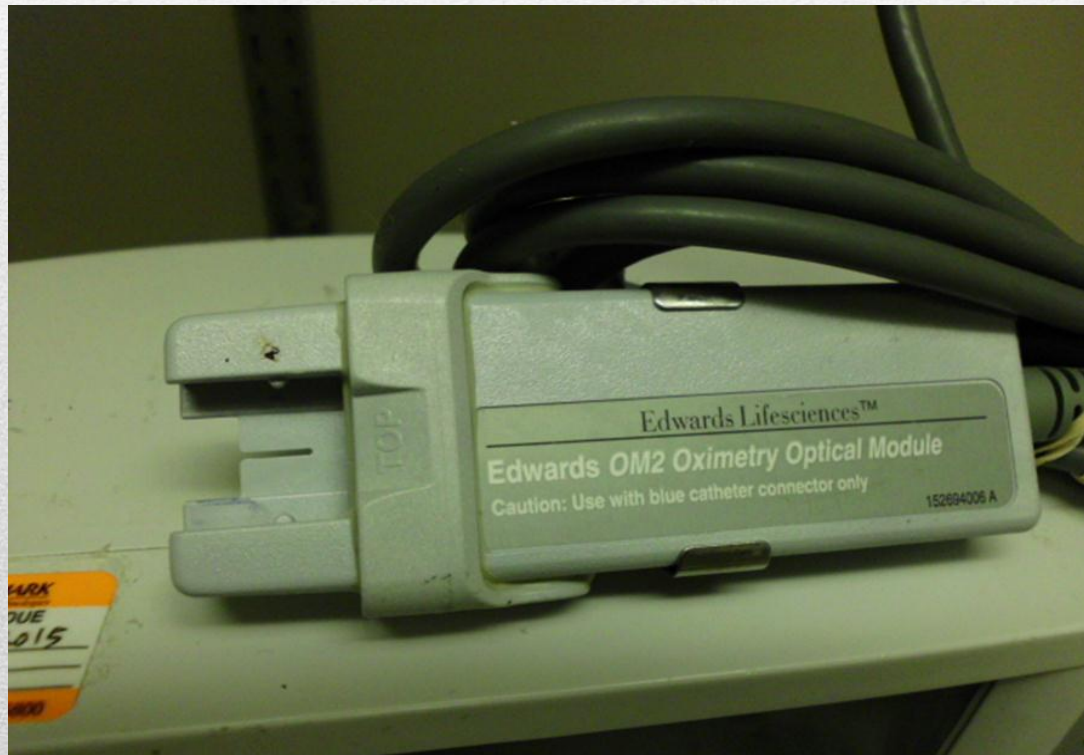
Advanced Technology Swan-Ganz Catheter Set-up

Below is the Swan-Ganz catheter.



Advanced Technology Swan-Ganz Catheter Set-up

This is the optimal module cable. This connects to the blue end of the Swan-Ganz catheter.



Advanced Technology Swan-Ganz Catheter Set-up

This connects to the red.



Advanced Technology Swan-Ganz Catheter Set-up

This shows how it connects to the cables from the two previous pictures.



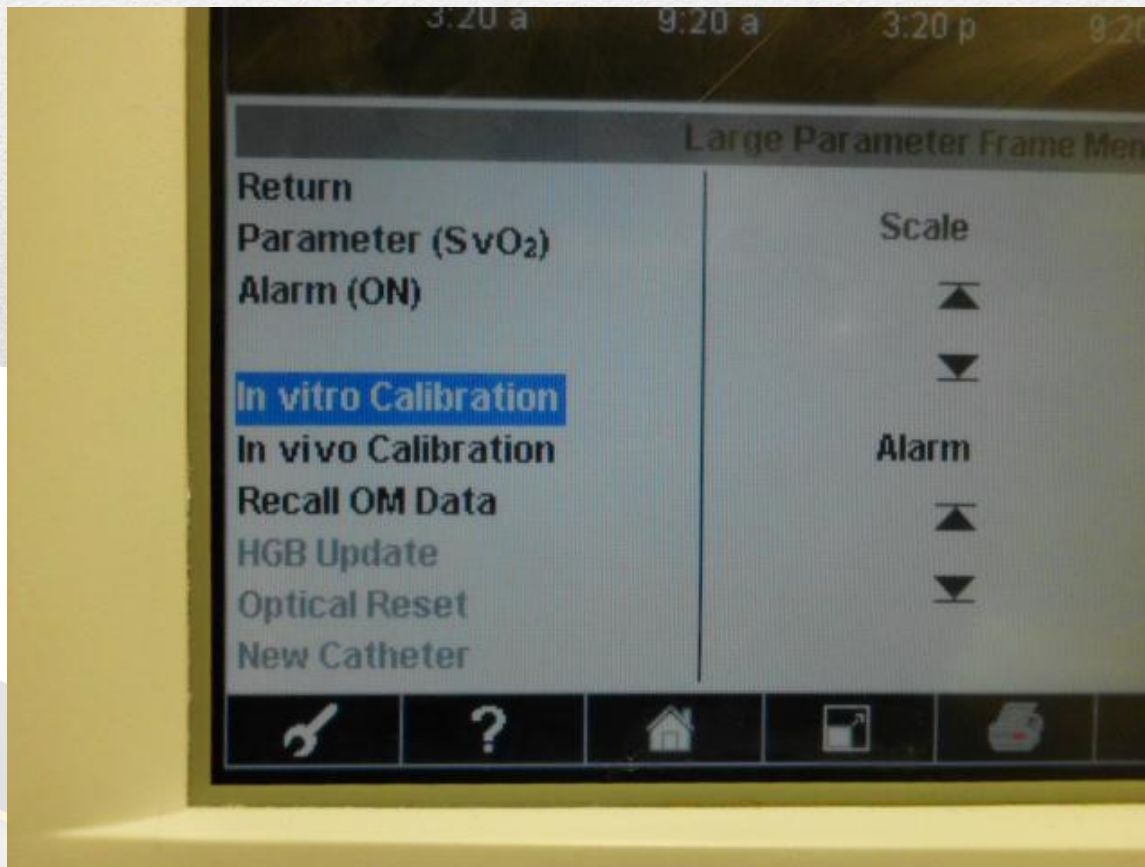
Advanced Technology Swan-Ganz Catheter Set-up

- Plug in the Vigilance II monitor and turn on. The button is on the top right labelled on/off. It takes about 20 minutes to warm up prior to the first calibration.
- For new patient click **yes** to clear old data. Scroll using knob. Put in height and weight of patient to get a calculation for body surface area (BSA). Hit continue.



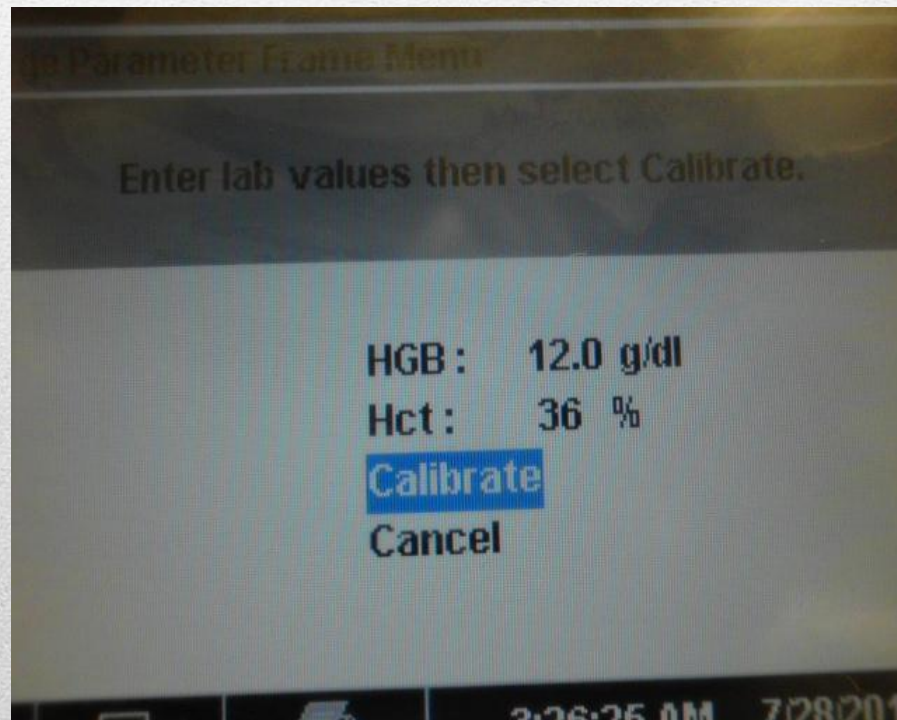
Advanced Technology Swan-Ganz Catheter Set-up

- Using the navigation knob to highlight SvO₂ parameter frame. Click knob to display calibration menu. Highlight in vitro calibration as shown below and click it.



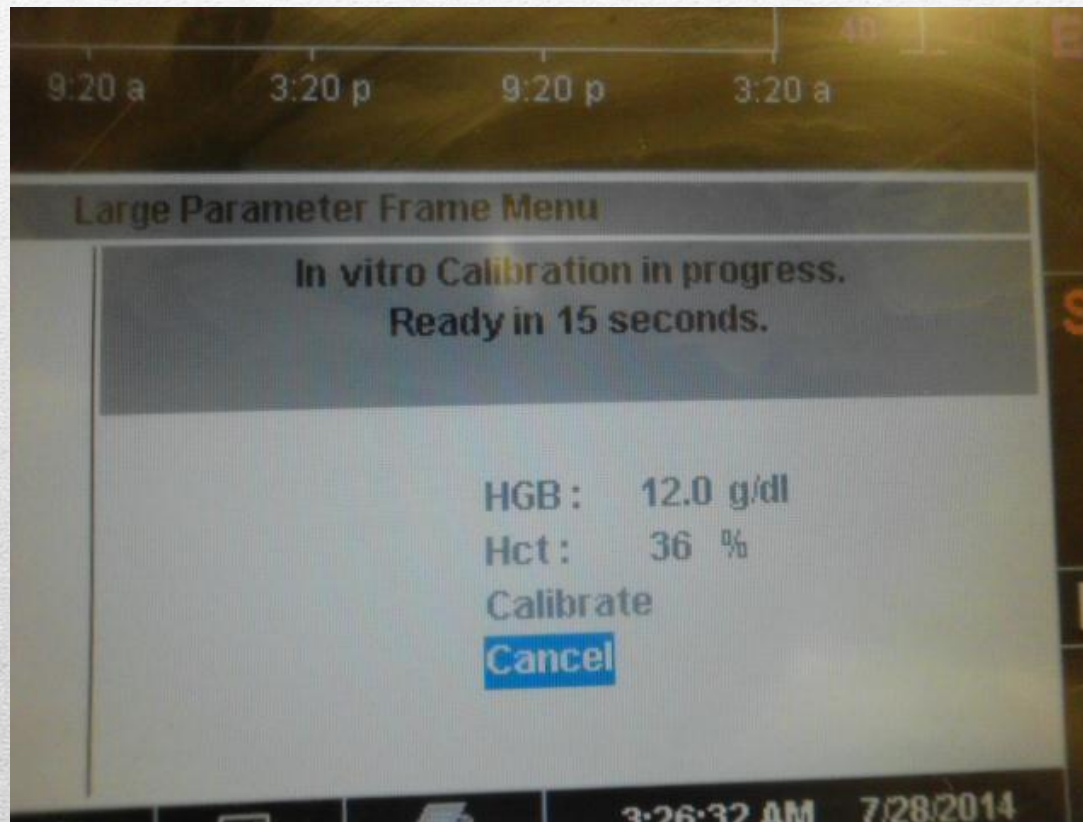
Advanced Technology Swan-Ganz Catheter Set-up

Click on HGB and scroll to enter patient's current value, clicking to confirm. It will automatically update your HCT. Click calibrate.



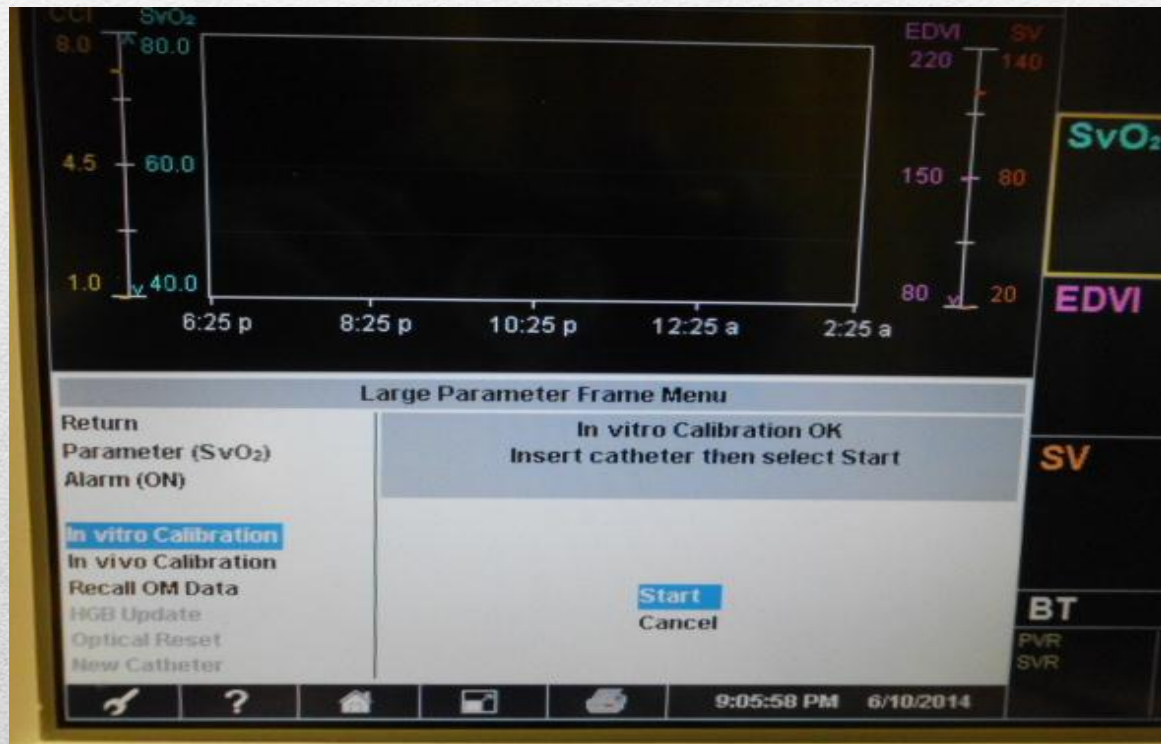
Advanced Technology Swan-Ganz Catheter Set-up

In vitro calibration should take 20 seconds.



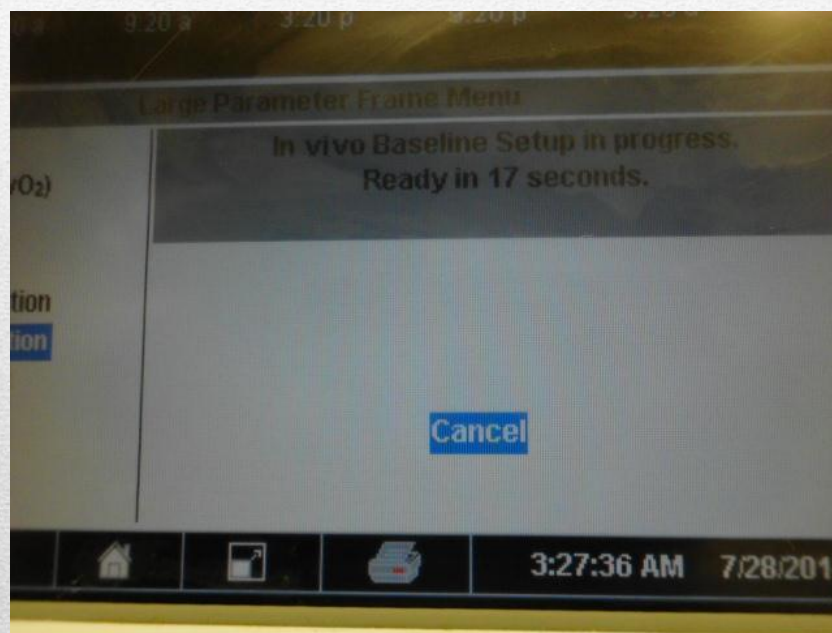
Advanced Technology Swan-Ganz Catheter Set-up

Upon successful completion of calibration, the catheter is ready to place into the patient. At this point the nurse should flush the swan. After the catheter is inserted press the **Start** button as shown below.



Advanced Technology Swan-Ganz Catheter Set-up

- After X-Ray verification of proper catheter placement, perform **In vivo** calibration. (Use knob to scroll to and select **In vivo calibration**. This should take 25 seconds. Next **draw** will be highlighted. Click **draw** then obtain and send lab samples to tube station 306.
- Enter SvO₂ and HGB values and click calibrate.



Advanced Technology Swan-Ganz Catheter Set-up

- Click the other boxes to read the following
 - Second box- Continuous cardiac index (CCI)
 - Third box- EDVI
 - Fourth box- Stroke volume (SV)

Advanced Technology Swan-Ganz Catheter Troubleshooting

- Signal Quality Indicator (SQI)
 - Level 1 normal, optimal signal
 - Level 2 intermediate, moderately compromised signal
 - Level 3 poor, poor signal quality
 - Level 4 unacceptable, severe problem with signal quality
- Signal quality may be compromised by:
 - Pulsatility
 - Signal intensity (kinked catheter, blood clot, hemodilution)
 - Intermittent contact with vessel wall

Advanced Technology Swan-Ganz Catheter Troubleshooting

- Signal quality may be improved by:
 - Try to aspirate the distal lumen, or flush lumen with extreme caution
 - Check catheter for kinking and recalibrate
 - Reposition catheter and if SQL is >2 , recalibrate monitor
 - Attempt to distance electrocautery equipment and cables from the vigilance monitor
 - Plug in the power cord into separate AC circuits if possible
 - Update entered HGB values when there is a physiologic change of 1.8/dL (1.1mmol/L) or greater in the hemoglobin

Advanced Technology Swan-Ganz Catheter Troubleshooting

- Vigilance II will no longer perform CCO measurements if the patient's HR exceeds 130bpm or the patient temperature reaches >103 degrees. The vigilance will quit tracking data until the problem is resolved
- Vigilance monitor needs to be slaved to the patient HR monitor(Phillips monitor) to calculate an EDVI. (HR out of limits 40-170, 150 on software 6.0, irregular heartbeat, or paced beats.) Vigilance will resume calculation when the problem is resolved
- The CCO cable can be self tested by accessing the wrench icon on the bottom toolbar (left-hand corner). Select patient CCO cable test and follow directions.
- Take special note that the Edwards Vigilance II monitor directly affects a patient's EEG reading.