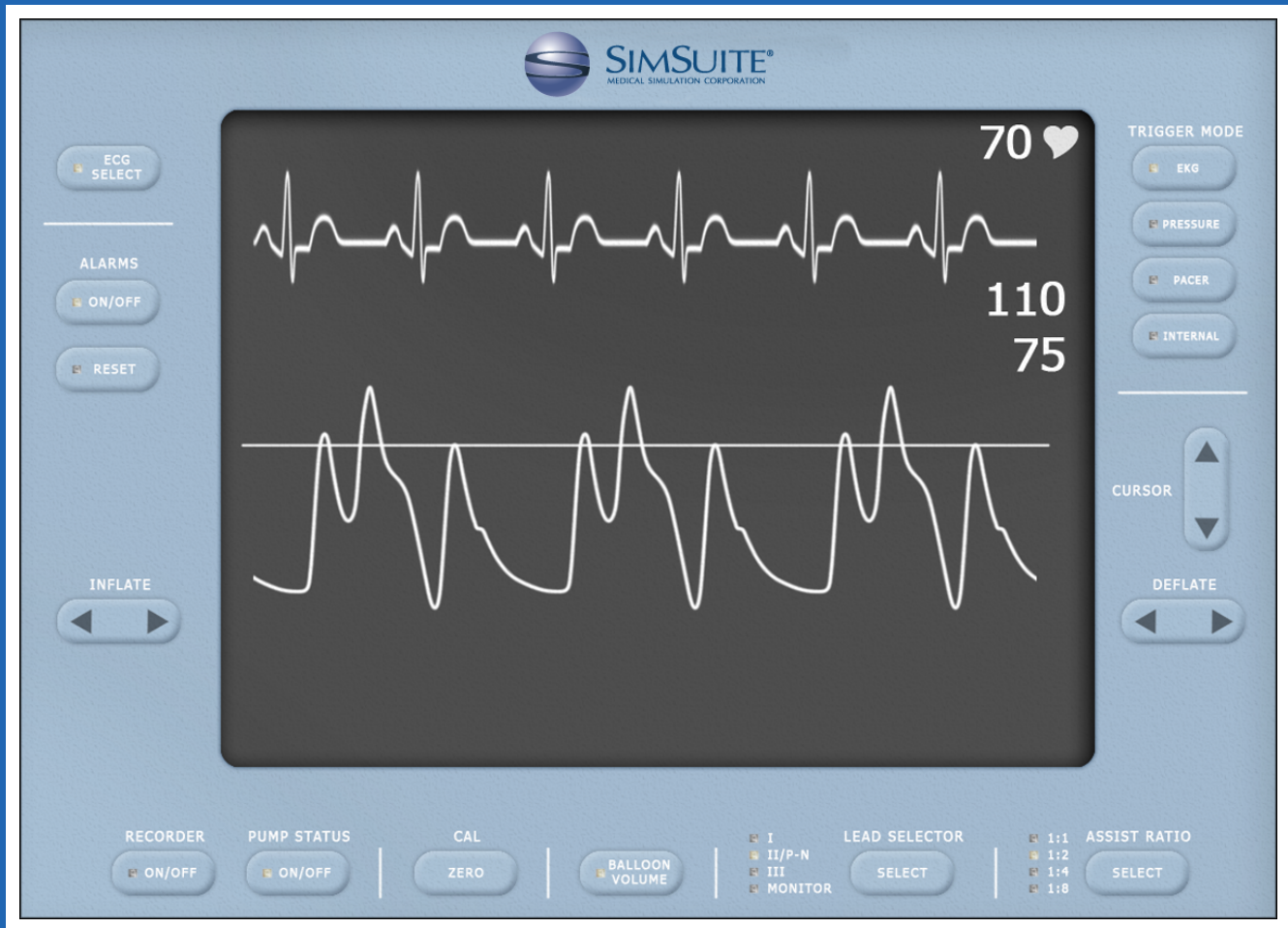


AUGMENT

INTRA-AORTIC BALLOON PUMP COUNTERPULSATION



Your Confidence
in IABP Management



SIMSUITE[®]
MEDICAL SIMULATION CORPORATION

Intra-Aortic Balloon Pump Counterpulsation

Course Objectives

At the end of this course, the participant should be able to:

- Understand the principles of intra-aortic balloon counterpulsation
- Identify the stages of the cardiac cycle and the effects of IABP therapy
- Develop an understanding of proper timing and the effects of timing errors
- Develop a working knowledge of indications and contraindications of IABP therapy
- Troubleshoot IABP issues with confidence

Target Audience

- Critical Care Staff
- Emergency Department Staff
- Interventional Lab Staff
- Operating Room Staff
- Recovery Room Staff

The course includes the following:

- Pre-test
- Introduction
 - ◆ Description
 - ◆ History of counterpulsation
 - ◆ Indications and contraindications
- Placement of the IABP
 - ◆ Assessment
 - ◆ Supplies
 - ◆ IAB prep
 - ◆ Procedure
- How the IABP works
- Cardiac cycle
 - ◆ Refresher
 - ◆ Ventricular filling
 - ◆ Ventricular systole
 - ◆ Cardiac cycle and IABP therapy
- Hemodynamic effects of IABP therapy
- IABP timing
 - ◆ Balloon inflation frequency
 - ◆ Timing goals
 - ◆ Trigger selection
 - ◆ Timing errors
- Balloon waveforms
- Complications
- Post-insertion nursing care

- Troubleshooting
- Weaning
 - ◆ Technique
 - ◆ Indications
- Post-test

Benefits

- Online convenience and flexibility: available anytime, anywhere
- Train the entire healthcare team
- Self-paced learning
- Consistent training
- Guideline driven
- Supplements staff orientation programs and continuing education
- Integration into Quality Improvement Programs

Clinical Applicability

An Intra-Aortic Balloon Pump (IABP) is a mechanical device that is used to decrease the oxygen demands of the heart muscle while at the same time increasing cardiac output (the volume of blood pumped by the heart in one minute). The IABP was developed and introduced into clinical practice during the 1960s for treatment of cardiogenic shock and left ventricular heart failure. It initially required placement in the operating room, but has progressed to percutaneous placement that can be performed at the bedside or in the cardiac catheterization lab. IABP therapy has become a cornerstone in the treatment of dysfunctional and ischemic myocardium, and due to its ease of insertion, it has become the most widely used form of mechanical circulatory support. IABP therapy has several indications including treatment of acute heart attack, cardiogenic shock, support for complex high-risk percutaneous interventional procedures, as a bridge for cardiac transplant, and inability to wean from cardiopulmonary bypass.

Several companies that manufacture these devices have automated and simplified the use of IABP devices. However, it is critical that staff understand the physiology and mechanics of the equipment in order to troubleshoot issues that could lead to serious complications.

For more information, contact HealthcareGroup@medsimulation.com.



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