

Advanced Cardiovascular Life Support

Learning Station Outline

Electrical Therapy

The Electrical Therapy station is a 30 minute rotation consisting of combined cardiovascular and electrical therapy related content. This station will consist of 3 sections and integrates clinical knowledge, simulation and hands-on practice.

At the end of this section students should be able to:

- Identify life-threatening ECG rhythms/arrhythmias;
- Identify proper locations for application of ECG leads and multi-function pads;
- Demonstrate Synchronized Cardioversion with emphasis on varied energy levels, pathway to and application of the “**Sync**” soft key, purpose of synchronizing to R-wave, as well as safe and timely shock delivery;
- Demonstrate manual defibrillation with emphasis on appropriate energy levels, charging and clearing, as well as safe and timely shock delivery; and
- Demonstrate Transcutaneous Pacing with emphasis on A/P pad placement as well as verification of mechanical and electrical capture. Point out location of 4:1 button and how it applies to external pacing;

A. *Technology Review*

1. Instructors should first conduct an in-depth review of the Zoll R-Series CCT Monitor, incorporating the *Monitor* function, *Defibrillation* function, *Transcutaneous Pacing* Function and *Synchronized Cardioversion* function. ***Note** Instructors may utilize the “Zoll R-Series Technology Review Guide” found in the station specific binder.*
2. Upon conclusion of this section students should have a basic understanding of monitor related functions, as they will receive hands-on electrical therapy skills later in the station.

B. *Rhythm Disturbances*

1. Instructors should review the basics of rhythm identification (i.e. rate, regularity, QRS duration and P-wave identification) and review the following rhythms related to ACLS cardiac algorithms:
 - Regular Sinus Rhythm;
 - Sinus Tachycardia;
 - Sinus Bradycardia;

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- Tachyarrhythmias (Narrow Complex);
- Tachyarrhythmias (Wide Complex);
- Ventricular Fibrillation (VF);
- Pulseless Electrical Activity;
- Pulseless Ventricular Tachycardia (VT); and
- Asystole

C. Electrical Therapy Hands-On Practice

1. It is recommended that this section be performed in a basic (short) scenario format while allowing ample time for students to receive hands-on practice. Instructors should provide students with short scenarios (i.e. VF/ Pulseless VT, Bradycardia, Tachycardia) and allow students, in groups of 1 or 2 demonstrate electrical therapy related interventions.