

SmartMan Code User Manual – 3.0 AHA or Low Volume Protocol

For SmartMan Code, Megacode and Megacode Low Volume

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SMARTMAN CODE
MEGACODE
MEGACODE LV

3.0 WHICH PROTOCOL TO RUN (AHA or LOW VOLUME)

Depending on which version of the manikin you purchased and which software you have, you may have the option to run more than one protocol. SmartMan Code supports both the AHA protocols for CPR and the Low Volume protocols for CPR.

If you are not sure which protocol you are following, see below for the defining differences between the two protocols.

3.1 AHA Protocols

This is the protocol to be performed on an intubated patient as recommended by the current AHA 2015 Guidelines.

10:1
ALS

The current protocol for performing CPR on an intubated patient is continuous chest compressions with a ventilations provided about every 6 seconds. The chest compressions are also on-going when the ventilations are provided. This goes for between 2-4 minutes before the AED analyzes the heart rhythm.

The volume of the ventilation is the same as in normal CPR, i.e. between 500ml and 700ml.

In the SmartMan Megacode, once you start 10:1 on an intubated victim the program will always look for 10:1. You cannot return to 30:2. You must perform 10:1 once intubation has occurred. 10:1 on an intubated victim is detected by the program when you give a breath about every six seconds or

about every 10th compression. In SmartMan this means it must be between every 6th to 14th compression. If it is outside of this range it will not show.

3.2 Low Volume Protocols

Recent research into CPR by the Resuscitation Outcomes Consortium (ROC) has indicating that there are two crucial factors which relate to improving survival of SCA;

- 1) High quality chest compressions;
- 2) Reducing the Time off the Chest

Several different groups have developed slightly different programs to address these two important factors. Such programs go under different names. For example some are called ROC, Pitcrew, CAMS.

Low Volume Protocol. This protocol aims to provide continuous chest compressions with ventilations even when a patient does not have an advanced airway. There is no stopping of the chest compressions. The ventilation is provided as the compressions are ongoing.

This protocol must not be confused with the above 10:1 ALS protocol (asynchronous CPR). The physics of performing this protocol different from performing on an intubated patient. It is performed on a non-intubated patient. This dramatically changes how the ventilation is performed.

In SmartMan we indicate the difference between the two protocols by indicating whether it is **NV** indicating Normal Volume or **LV** indicating Low Volume.

Summary of Protocols

30:2 CPR. This is the standard protocol to perform CPR which is in force by the current 2015 Guidelines.

10:1 Asynchronous CPR: This is the current 2015 Guidelines for performing CPR on an intubated patient. As chest compressions are ongoing you give 500ml-700ml of air. This requires a quick hard puff of air. This will not put air into the stomach because the patient is intubated.

10:1 LV: This is performed where the medical director requires this protocol. Chest compressions are ongoing and a ventilation is given to a non-intubated patient. You give 300ml-400ml of air. This is delivered in a short puff of air on the up stroke of the chest compressions. You cannot give a strong puff of air as this will put air into the stomach instead of into the lungs.

10:1 BLS	CPR protocol on a non-intubated patient is continuous chest compressions with a ventilations provided about every 6 seconds while the chest compressions are on-going.
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This is a low volume protocol as the victim is NOT intubated and there is a potential problem with insufflation of the stomach. With help from the negative pressure created on release of the chest compression it is possible to put between 300ml and 400ml into the lungs. This lower volume will be indicated in the ventilations feedback area.

Intubation. You can still provide an advanced airway on this patient at some point during the code. Click on the intubate button and the program will switch to 10:1 ALS. You will notice that the volume indicators on the screen will change to 500ml – 700ml.

In the SmartMan Megacode, once you start 10:1 ALS on an intubated victim the program will always look for 10:1 ALS. You cannot return to 30:2 or 10:1 BLS.

You must perform 10:1 once intubation has occurred. 10:1 on an intubated victim is detected by the program when you give a breath (target volume 500-700ml) about every six seconds or about every 10th compression. In SmartMan this means it must be between every 6th to 14th compression. If it is outside of this range it will not show.