The CPREzy

Report of a preliminary assessment by
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Setting
Training sessions for lay first responders in Market Lavington, Wiltshire.

Candidates
12 candidates attending training sessions on CPR, AED use and First Aid on two separate occasions.
Candidates ages 30-60+. 75% Female.

Manikin used
Laerdal Little Anne. (Well used, rather old model).

Results
1. All candidates found the compression device simple to use after a simple explanation.
2. No problems such as displacement on the sternum occurred.
3. Use of the CPREzy device consistently enhanced accurate chest compression rates.
4. With the compression aid pressure set at "Medium Adult" the compression depth achieved on the manikin used seemed to be greater than 50mm in most cases. This may be a feature of an old, well-used manikin and the process will be repeated with alternative manikins.
5. The face mask for lung inflation was easy to use after simple explanation and demonstration and worked well. It could benefit from a port for additional oxygen if available.

Opinion

1. A valuable training aid to improve the performance of chest compressions.
2. The face mask forms an effective barrier and works well. (N.B. added port for extra oxygen)
3. In addition to being a training aid , the device has potential use in commercial and public establishments with first aid equipment available under the First Aid at Work and Public Access Defibrillation Schemes. These could include big shops, airports, railway and bus stations, factories, commercial centres and leisure and sports centres etc, where the CPREzy could be kept with the AED and oxygen cylinder.

Annexe A.

Further to concerns expressed in Results paragraph 4. above it was decided to carry out further tests using a different manikin. These tests were conducted using an Ambu Man. The model chosen has the capability to measure the depth of chest compression and to vary the chest stiffness from 11 N/mm (Large Adult) and 6N/mm (Small Adult)

The manikin was first set to represent a Large Adult and the CPREzy used as if on a 90Kg patient. Two operators used the device to light the fourth green LED (Large Adult). When this fourth LED was lit a compression depth of between 40mm and 45 mm had been achieved in the majority of attempts.

The manikin was then set to mimic a Small Adult and the CPREzy used as if on a 55Kg patient. The same two operators repeated the first trials. When the device was used to light the second LED (Small Adult) the same compression depth of between 40mm and 45mm was achieved.

Finally the manikin was set to an intermediate setting (approximately half way between 11 N/mm and 6 N/mm) and the trials repeated as if on an Average Adult (75Kg). The same 40mm to 45mm compression depth was achieved when the third LED was lit.

It is concluded that the CPREzy compression depth settings will meet ILCOR standards accurately when used on a manikin designed to represent the entire range of adult chest stiffness.

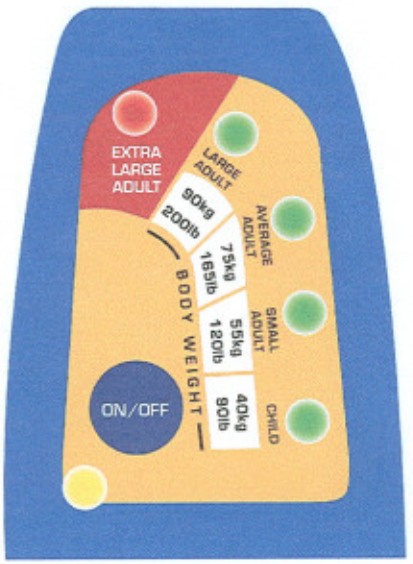

Fig.1 CPREzy top label

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