

CPR 11: a mobile application that can help in saving lives (Mobile App User Guide)

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NAME OF THE MOBILE APPLICATION

CPR 11.

CATEGORY Health.

PLATFORM IOS (iPhone 4 and above), Android (versions 2.3.3 and above), Windows Phone.

COST Free.

ABOUT THE APP

In just 11 steps, the CPR 11 mobile application presents a simple plan, with clear and precise instructions, on how to recognise a sudden cardiac arrest (SCA), provide immediate and adequate response with efficient compressions and ventilations, how to use the automated external defibrillator (AED) and how to transfer the player from the field of play.

With the help of text and voice messages, each of the 11 steps includes a brief, clear video that aims to make it possible for anyone, even those with no previous first aid or medical training, to be able to recognise a SCA and meet the objective of starting resuscitation manoeuvres in the first minute and defibrillation in the first 3 min after the athlete's collapse.

The app has been designed to take into account the specific characteristics of SCA during contact sport, such as football, taking special care of the cervical spine when handling the collapsed SCA player.

CPR 11 is an extremely useful guide for everyone (players, coaches, referees, officials, spectators, etc) attending sports events at any level. Although the app should not be considered a substitute for proper training in cardiopulmonary resuscitation (CPR) and AED use, it can definitely be used in training courses and to reach those who do not have access to proper CPR and AED training.

Downloading and sharing the app with as many people as possible will help save lives. At present, CPR 11 is available in Spanish, English and Portuguese, and will soon be available in many other languages from around the world.

CPR 11 has been designed by specialists from Ripoll & De Prado Sport Clinic (FIFA Medical Centre of Excellence) and FIFA/F-MARC.¹ The app has been endorsed by the Spanish Society of Emergency Medicine (SEMES) and is promoted by Mapfre Foundation.

USE IN CLINICAL PRACTICE

Sudden cardiac death (SCD) from SCA is the most frequent medical cause of death in young athletes, with an estimated rate of $\approx 1:50\,000$ athletes/year.² Despite the great media impact of SCA and SCD in elite athletes, most cases occur in recreational sports.³ In addition, a significant proportion of SCA and SCD cases in young competitive athletes occur in those under 18 years of age. Some countries have implemented precompetition medical screening programmes to detect cardiac conditions that have been identified as causing SCD (hereditary or congenital and infective in those aged <35 years, and atherosclerotic coronary artery disease in those >35 years of age). However, up to 25% of SCD cases are classified as autopsy-negative sudden unexplained deaths, and even the best screening programmes cannot detect all the patients at risk.² Early and effective use of CPR and AED remains the single most effective treatment for exercise-related SCA and has been shown to dramatically increase the survival rate.⁴

PROS

- ▶ Eleven simple, clear comprehensive steps that instruct the layman on how to perform effective CPR and use of an AED.
- ▶ Eleven short videos with clear instructions (text and voice).
- ▶ Can be used as a real-time treatment tool.
- ▶ Can be used as a realistic practical training tool.
- ▶ Specifically designed to be used in the sports environment.
- ▶ May help in saving lives in collapsed sportspersons on the field of sport.
- ▶ Can be used on smart phones making it universally available.

CONS

- ▶ Currently available only in English, Spanish and Portuguese, but with more languages planned.
- ▶ Not a substitute for proper manikin training, if readily available, in use of CPR and AED.
- ▶ Cannot measure if the rescuer is performing as instructed by the video.
- ▶ Still not able to advise on the location of the nearest AED.

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