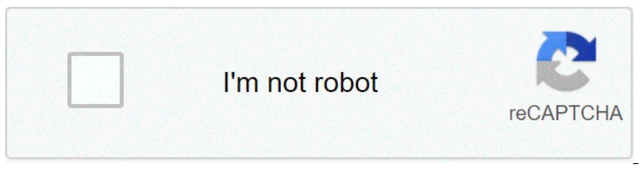

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Current aha cpr guidelines 2018

CONTACT Address European Resuscitation Council VZW Emile Vanderveldelaan 35 2845 Niel Belgium cardiopulmonary resuscitation (CPR) consists in the use of chest compressions and artificial ventilation to maintain the circulatory flow and oxygenation during cardiac arrest (see images below). Although survival rates and neurological results are poor for patients with cardiac arrest, early resuscitation - which involves early defibrillation - and the proper implementation of post-cardiac arrest treatment lead to better survival and neurological results. Delivery of chest compressions. Note the overlapping hands placed on the center of the sternum, with the arms of the extended rescuer. The chest compressions must be delivered at a speed of at least 100 compressions per minute. Delivery of vent ventilation. The CPR should be performed immediately on any person who has become unconscious and is found to be without a pulse. The evaluation of cardiac electrical activity through rapid recording “rhythm strip” can provide a more detailed analysis of the type of cardiac arrest as well as indicate additional treatment options. The loss of effective heart activity is generally due to the spontaneous initiation of an unperfused arrhythmia, sometimes referred to as malignant arrhythmia. The most common non-perfuse arrhythmias include the following: Ventricular Fibrillation (VF) Tachycardia ventricular without cuffs (VT) Electrical activity without cuffs (PEA) CPR should be started before the rhythm is identified and should be continued while the defibrillator is applied and loaded. In addition, the CPR should be resumed immediately after a defibrillatory shock until a button state is established. The only absolute contraindication to the CPR is a non-resuscitated order (DNR) or another advanced directive indicating the desire of a person ofbe revived in case of cardiac arrest. a relative contraindication for the execution of the rcp is if a clinic rightly considers that thewould be medically futile. The CPR equipment, in its simplest form, can be performed anywhere without the need for specialized equipment. Universal precautions (i.e. gloves, mask, dress) must be taken. However, the CPR is delivered without such protections in most patients who are resurrected in the outside environment of the hospital. Some hospitals and EMS systems employ devices to provide mechanical chest compressions. A heart defibrillator provides an electrical shock to the heart through 2 electrodes placed on the patient's torso and can restore the heart in a normal confusion. In its standard form, the CPR includes the following 3 steps, executed in order: For lay rescuers, CPR (COCPR) is recommended. The positioning for the CPR is as follows: The CPR is more easily and effectively performed by laying the supine of the patient on a relatively difficult surface, which allows an effective compression of the sternum Delivery of the CPR on a mattress or other soft material is generally less effective The person who gives compressions should be placed high enough above the patient to obtain a sufficient lever, so that he or she can use body weight to properly compress the chest For an unconscious adult, the CPR is started as follows: Give 30 chest compressions Run the head chin lifting maneuvers to open the track and determine if the patient is breathing Before starting the aerations, look in the patient's mouth for a foreign body blocking the chest compression highway The supplier must do as follows: Place the heel of a hand on the patient's dirt and the other hand on the top of the first, the fingers interlaced Extend the elbows and the supplier leans directly on the patient (see picture below) Press down, compress the chest2 in Release the breast and allow it to completely replenish The compression depth for adults should be at least 2 inches (instead of up to 2 inches, as in the past)The key phrase for chest compression is, “Push hard and fast” Untrained supports must perform chest compression – only CPR (COCPR) After 30 compressions, 2 breaths are given; However, an intubated patient should receive continuous compressions while the aerations are given 8-10 times a minute The whole process is repeated until the wrist returns or the patient is transferred to the final care To prevent the tiredness or injury of the supplier, new suppliers should intervene every 2-3 minutes (i.e., suppliers should exchange, giving the chest compressor a rest while another rescuer continues CPR ventilation If the patient does not breathe, 2 aerations are administered via the supplier's mouth or a bag-valve-mask (BVM). If available, a barrier device (pocket mask or facial shield) should be used. To perform BVM or airway invasive technique, the supplier does as follows: Ensure a tight seal between the mask and the face of the patient Squill the bag with a hand for about 1 second, forcing at least 500 mL of air in the patient's lungs To perform the mouth-to-mouth technique, the supplier does as follows: Pins the patient's nostrils closed to assist with a stagnated seal Put the mouth completely on the patient's mouth After 30 chest compression, give 2 breaths (CPR cycle 30:2) Give every breath for about 1 second with enough force to raise the patient's chest Failure to observe the increase of the chest indicates an inadequate mouth seal occlusion of the highway After giving the 2 breaths, resume the CPR cycle Complications include the following: Tracts of ribs or of the chest compression stern (mostly considered uncommon) Gastric insufflation by artificial breathing using non-invasive ventilation methods (e.g., mouth-to-mouthbvm;) this can lead to vomiting, with further compromise or aspiration of airways; insertion of an invasive airway (e.g. endotracheal tube) prevents this problem in the hospital environment or when a paramedic oradvanced supplier is present, ACLS guidelines require a more robust approach to treating heart arrests, including: Invasive aviation procedures Emergency heart treatments are no longer recommended: Atropine routine for pulse-free electrical activity (PEA)/pressure Asistole cricoide (with CPR) Airway aspiration for all newborns (except those with obvious obstruction) For patients with cardiac arrest, survival rates and neurological results are poor, although the appropriate early reanimation, involving cardiopulmonary reanimation (CPR), early defibrillation, and the appropriate implementation of post-cardial arrest cure, leads to better survival and neurological results. Targeted education and training regarding the treatment of cardiac arrests directed to emergency medical service professionals (EMS) and the public significantly increased the survival rates of cardiac arrests. [1] CPR consists of the use of chest compressions and artificial ventilation to maintain the circulatory flow and oxygenation during cardiac arrest. A variation of the CPR known as “only hands” or “only compression” CPR (COCPR) consists exclusively of chest compressions. This variant therapy is receiving increasing attention as an option for lay providers (i.e., non-medical witnesses of cardiac arrest events). The relative merits of standard CPR and COCPR continue to be widely discussed. An observatory study involving more than 40,000 patients concluded that the standard CPR was associated with increased survival and more favourable neurological results of COCPR was. [2] However, other studies have shown opposite results, and it is currently accepted that the COCPR is higher than the standard CPR under cardiac arrest outside hospital. Several large randomized controlled trials and potential cohorts,as a meta-analysis, they have shown that the COCPR on the side is detachable-performed leads to better survival in adults with cardiac arrest outside the hospital, compared to the standard CPR. [3] [3]5] the differences between these results can be attributed to a subgroup of younger patients who stop from non-heart causes, which clearly demonstrate better results with conventional rcp. [2] The 2010 revisions to the American heart association rcp guidelines (aha) say that untrained passers should cocpr instead of standard rcp or no rcp (see US heart association cpr guidelines.) [6] among the more than 300,000 cardiac arrests that occur annually in the United States, survival rates are typically less than 10% for lower events in the hospital and 20% lower than in the hospital. [7, 8, 9, 10, 11] an akahane et al study suggested that survival rates may be higher in men, but that neurological results may be better in younger women, although the reasons for such sexual differences are not clear. [12] Moreover, studies have shown that survival falls by 10-15% for each minute of cardiac arrest without delivery of the rcp. [13, 14] bystander cpr started a few minutes from the start of the arrest was shown to improve survival rates by 2 to 3 times, as well as improve neurological results at 1 month. [15, 16] it has also been shown that cardiac arrests outside hospital that occur in public areas are more likely to be associated with early ventricular fibrillation (vf) or ventricular tachycardia without pulse (vt) and have better survival rates than the arrests occurring at home. [17] This article focuses on rcp, which is only an aspect of reanimation care. other interventions, such as the administration of pharmacological agents, cardiac defibrillation, invasive airway procedures, therapeutic hypothermia of post-cardiac arrest, [18, 19, 20, 21, 22] the oo of echocardiography in reanimation, [23] anddiagnostic manoeuvres, [24, 25] are beyond the scope of this article. For more information, see the Reanimation Resource Centre; for specific information on reanimation of newborns, see Newborn Resuscitation. See detailed guide sectionsin the article. The CPR should be performed immediately on any person who has become unconscious and is found to be without a pulse. The evaluation of cardiac electrical activity through rapid recording “rhythm strip” can provide a more detailed analysis of the type of cardiac arrest as well as indicate additional treatment options. The loss of effective heart activity is generally due to the spontaneous initiation of an unperfused arrhythmia, sometimes referred to as malignant arrhythmia. The most common non-perfuse arrhythmias include the following: Although rapid defibrillation has been demonstrated to improve survival for VF rhythms and VT pulses, [26] CPR should be started before the rhythm is identified and should be continued while the defibrillator is in application and charge. In addition, the CPR should be resumed immediately after a defibrillatory shock until a button state is established. This is supported by studies that show that “preshock breaks” in CPR involve lower rates of successful defibrillation and patient recovery. [27] In a study involving cardiac arrest outside the hospital in Seattle, 84% of patients resumed a pulse when defibrillated during the VF. [28] Defibrillation is generally more effective the faster is distributed. The American College of Surgeons, the American College of Emergency Physicians, the National Association of EMS Doctors, and the American Academy of Pediatrics have issued guidelines on detention or cessation of cardiopulmonary resuscitation outside the pediatric hospital. [29] Recommendations include: Considering reanimation should be considered in case of victims of penetrating or blurred traumas that obviously will not survive. Standard resuscitation should be initiated in arrested patients who have not suffered trauma. Victims of lighting strike orwith significant hypothermia should be revived. Children who showed signs of life before traumatic resuscitation must be takenfor the emergency; RCP must be performed, the airway must be managed, and intraovenous or intraossee lines must be placed along the path. In cases where trauma has not been seen, it may be assumed that a longer period of hypoxia could have occurred and limit the CPR to 30 minutes or less can be considered. When the circumstances or times of the traumatic event are in doubt, reanimation can be started and continued until the arrival in the hospital. Reanimation of termination in children should be included in state protocols. The only absolute contraindication to the CPR is a non-reanimated order (DNR) or another advanced directive that indicates the desire of a person not to be revived in case of cardiac arrest. A contraindication regarding the execution of the CPR may arise if a clinic rightly considers that the intervention would be medically useless, although this is clearly a complex problem that is an active area of research. [30, 31] what are the current aha cpr guidelines. what are the new aha cpr guidelines