Cpr guidelines 2015 circulation

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Periodic amendments to the guidelines have been published by AHA in 1974,2 1980,3 1986,4 1992,5 2000,6 2005,7 2010,8 and now in 2015. The 2010 AHA guidelines for CPR and ECC provided a comprehensive review of evidence-based recommendations for resuscitation, ECC and first aid. The 2015 AHA Guidelines Update for CPR and ECC focuses on topics with significant new science or ongoing controversy, and therefore serves as an update to the 2010 AHA guidelines for CPR and ECC instead of the full revision of the guidelines. The purpose of this executive summary is to provide an overview of the new or revised recommendations contained in the 2015 Guidelines Update. This document does not include comprehensive reference citations; The reader is sent to parts 3 through 9 for a more detailed review of the scientific evidence and recommendations on which they are based. There have been several changes in the organization of the 2015 guideline update compared to 2010. Part 4: Systems of care and sustainable quality improvement are an important new part focused on integrated structures and processes that are needed to create systems of care for both in-hospital and out-of-hospital resuscitation, which are capable of measuring and improving quality and patient outcomes. This part will replace the CPR observation part of the 2010 guidelines. Another new part of the 2015 guidelines update is Part 14: Education, which focuses on evidence-based recommendations to facilitate comprehensive, consistent, efficient and effective implementation of the AHA guidelines for CPR and ECC in practice. The recommendations will target the resuscitation education of both rescuers and healthcare providers. This part will replace the 2010 part titled Education, Implementation and Teams. 2015 Guidelines Adult stroke does not include a different part because of the material that is already offered at the most recent AHA/American Stroke Association guidelines for the management of acute stroke. 9.10 finally, the 2015 guidelines update marks the beginning of a new era for CPR and AHA guidelines for the ECC, because the guidelines will transition from a 5-year cycle to a web-based format of periodic revisions and updates that are constantly updated. The first release of web-based integrated guidelines is now based on the comprehensive 2010 guidelines available online on ECCguidelines.heart.org, as well as the 2015 Guidelines update. Moving forward, these guidelines will be updated using a continuous evidence evaluation process to facilitate a more rapid translation of new scientific discoveries into daily patient care. The creation of practice guidelines is only 1 link in the series of knowledge translations that begin with laboratory and clinical science and end in better patient outcomes. The AHA ECC committee has set an impact target of doubling bystander CPR rates by 2020 and doubling the existence of cardiac arrest. A lot of work will be needed throughout the entire spectrum of knowledge translation to reach this important goal. The evidence review and guidelines development process was quite different from the process used in the prior release of the process guidelines used to generate the 2015 AHA guidelines update for CPR and ECC, and marks the planned transition from the 5-year cycle of evidence review to the continuous evidence evaluation process. The AHA is continuing to partner with the International Liaison Committee on Resuscitation (ILCOR) in the evidence review process. However, for 2015, ILCOR preferred topics for systematic review based on clinical importance and availability of new evidence. Each priority subject was defined as a question in pico (population, intervention, comparative, result) format. Many of the subjects reviewed in 2010 did not have newly published evidence or controversial aspects, so they were not reviewed again in 2015. In 2015, 165 PICO questions were addressed by systematic reviews, while in 2010, 274 Pico questions were addressed by evidence evaluation. In addition, ILCOR adopted the evaluation, development, and evaluation of recommendations for evidence evaluation (grade) grading of the process and expanded the opportunity for public comment. The production of the grade process was used to generate the 2015 International Consensus with the Treatment Recommendations (CoSTR) on CPR and ECC Science. 11.12 ILCOR 2015 CoSTR's recommendations were used to inform the recommendations in the 2015 AHA Guidelines Update for CPR and ECC. The wording of these recommendations is based on the AHA classification system for clear review (see Part 2: Evidence Assessment and Management of Conflicts of Interest). 2015 AHA Guidelines Contains 315 classified recommendations for CPR and ECC. 78 recommendations of Class I (25%), 217 second class recommendations (68%) and 20 Class 3 recommendations (7%) are. Overall, 3 (1%) The level of evidence is based on (LOE) A, 50 (15%) LOE are based on B-R (randomized study), 46 (15%) LOE are based on B-NR (nonrandomized studies), 145 (46%) LOE are based on C-LD (limited data), and 73 (23%) LOE are based on C-EO (Consensus of Expert Opinion). These results highlight the constant knowledge gap in resuscitation science which needs to be addressed through extended research initiatives and funding opportunities. As mentioned above, a continuous evidence assessment from the 5-year cycle and transition to the guidelines update process will be initiated by the 2015 online publication of the AHA Integrated Guidelines for CPR and ECC in the transition process ECCguidelines.heart.org. The initial content will be a compilation of the 2010 guidelines and the 2015 guidelines update. In the future, the Scientific Evidence Assessment and Review System (SEERS) web-based resource will be updated from time to time with the results of ilcor continuous evidence evaluation process in www.ilcor.org/seers.Part 3: ethical issues resuscitation practice develops, ethical considerations must also evolve. Managing many decisions associated with resuscitation is challenging from many perspectives, especially when healthcare providers are dealing with ethics around decisions surrounding to provide or prevent emergency cardiovascular interventions. The ethical issues surrounding resuscitation are complex and vary in settings (in or out of hospital), providers (basic or advanced), patient populations (newborn, pediatric, or adult), and whether to terminate CPR. Although the ethical principles involved have not changed dramatically since the 2010 guidelines were published, data that informed many ethical discussions has been updated through the process of reviewing evidence. The 2015 ILCOR Evidence Review Process and the Resulting 2015 Guidelines Update include a number of recommendations that have implications for ethical decision-making in these challenging areas. Important new and updated recommendations that can inform ethical decisions additionally use CPR (ECPR) for cardiac arrest arrest prognostication factors for infants, Children, and adults recovered after violations of organs implanted after cardiac arrest for newborns, infants, children, and adults have decided to close new resuscitation strategies, such as ECPR, to further complicate cardiac arrest measures (see Part 6: Alternative techniques and cardiovascular accessories for cardiopulmonary resuscitation and Part 7: Advanced Cardiovascular Life Support). Understanding fair use, implications, and potential benefits related to such new treatments will be a On decision making. There's new information about prognostications for newborns, infants, babies, and/or after cardiac arrest (see Part 13: Neonatal Resuscitation, Part 12: Pediatric Advanced Life Support, and Part 8: Post-Cardiac Arrest Care). The increased use of targeted temperature management has led to new challenges for predicting neurologic outcomes in patients after cardiac arrest, and the latest data about the accuracy of special tests and studies should be used to guide decisions about care and limited intervention goals. With new information about the success rate for transplanted organs obtained from victims of cardiac arrest, there is ongoing discussion about the ethical implications around organ donation in an emergency setting. Some of the different approaches on important ethical concerns are brief in Part 3: Ethical issues. There is also an increased awareness that although children and adolescents cannot make legally binding decisions, information as much as possible should be shared using the appropriate language and information for their level of development. Finally, the phrase has been changed to the boundaries of care the limits of intervention, and there is an increasing availability of physician orders for life-treatment (POLST) forms, a new way of legally identifying people who want to have specific limits on intervention at the end of life, both in and outside health facilities. Part 4: All aspects of the system of care and sustainable quality improvement, from the recognition of the Cardiopulmonary Agreement, through cardiac arrest and resuscitation and post-cardiac arrest care, to the return of productive life, can be discussed in the context of a system or system of care. Systems of care have many working parts that are interdependent, each has an impact on every other aspect of care within that system. In the making of any improvements, providers must recognise the dependence of different parts of the system. There is also growing recognition that out-of-hospital cardiac arrest (OHCA) and hospital cardiac arrest (IHCA) systems of care should function differently. Part 4: The system of care and continuous quality improvement makes a clear distinction between the two systems in this 2015 guidelines update, noting that ohca is often the result of an unforeseen event with a reactive element, while focusing on the IHCA going from reactive resuscitation to prevention. New chains of survival are suggested for hospital and out-of-care hospital systems, with relatively recent arrests focused in the hospital on prevention. Additional emphasis should be on continuous quality improvement by identifying the problem that is limiting survival, and then by setting Having a method to influence changes to measure progress toward those goals, create accountability, and improve outcomes. This new part of the AHA guidelines for CPR and ECC summarizes the evidence reviewed in 2015 with a focus on systems of care for both the ICHCA and OHCA, and it outlines future efforts to improve these systems of care. A universal classification of care systems is proposed for stakeholders. There are evidence-based recommendations on how to improve these systems. In a randomized trial in critical new and updated recommendations, social media was used by dispatchers to inform potential rescuers surrounding possible cardiac arrest. Although some patients eventually received CPR from volunteers sent by the notification system, there was a higher rate of viewer-starting CPR (48% in the control group versus 62%). was. 13 Given the low risk of loss and the potential benefits of such information, municipalities may consider incorporating these technologies into their OHCA system of care. It may be advisable for communities to join, where available, social media technologies that call rescuers who are willing and capable of doing CPR and are in close proximity to a suspected victim of OHCA (Class IIb, LOE B-R). Special cardiac arrest centers can provide comprehensive care to patients after resuscitation from cardiac arrest. These particular centres have been proposed, and new evidence suggests that a regionalised approach to OHCA resuscitation could be considered that includes the use of cardiovascular resuscitation centres. A variety of early warning scores are available to help identify adult and pediatric patients at risk for the decline. Medical emergency teams or rapid response teams have been developed to help respond to deteriorating patients. The use of scoring systems to identify these patients and to respond to those scores or other indicators of decline may be considered the creation of teams, especially on general care wards for adults and for children with high-risk illnesses, and can help reduce the incidence of cardiac arrest. Evidence about the use of public access defibrillation was reviewed, and the use of automated external defibrillators (AED) by ordinary people continues to improve survival from the OHCA. We continue to recommend the implementation of public access defibrillation programs for the treatment of patients with OHCA in communities that have individuals at risk for cardiac arrest. Knowledge low intervals What is the optimal model for rapid response teams in IACA prevention, and is there evidence that rapid response teams improve outcomes? What are the most effective ways to increase viewer CPR for OHCA? What's the best structure for the team responding to IHCA, and that team What is the most suitable training for? Part 5: Adult Basic Life Support and Cardiopulmonary Cardiopulmonary Quality New Developments in Basic Life Support Science since 2010 The 2010 guidelines were most notable for the reorganization of the universal sequence from A-B-C (airways, breathing, compression) to C-A-B (compression, airways, breathing) to reduce the time for the onset of compression of the chest. Since 2010, the importance of high-quality chest compression has been re-emphasized, and targets for compression rate and depth have been further refined by relevant evidence. For untrained le rescuers, dispatchers play an important role in the recognition of abnormal breathing or sore gasps as signs of cardiac arrest, with recommendations for chest compression-only CPR. This section presents updated recommendations for the 2015 Adult Basic Life Support (BLS) guidelines for rescuers and healthcare providers. Major changes and constant points of emphasis in this 2015 guideline update include the following: Important links in the adult chain of survival for OHCA are unchanged since 2010; However, the emphasis on rapid detection of possible cardiac arrest by dispatchers with the immediate provision of CPR instructions to callers has increased. These guidelines take into account the ubiquitous presence of mobile phones that could allow rescuers to activate the emergency response system without leaving the victim's favour. For healthcare providers, these recommendations allow flexibility to activate an emergency response to better match the provider's clinical setting. More data is available indicating that high-quality CPR improves survival from cardiac arrest. Components of high-quality CPR include chest compression of chest compression of sufficient depth, which shrink the full chest from sufficient depth between blockage of chest compression, highly ventilation recommendations are made to simultaneously, choreographed approaches to chest compression, airway management, rescue breathing, rhythm detection, and shock delivery (if indicated) by an integrated team of highly trained rescuers in applicable settings. Important new and updated recommendationsMany studies have documented that the most common errors of resuscitation are insufficient compression rate and depth; Both errors may reduce survival. There are upper limits to the recommended compression rate based on new preliminary data for this 2015 guideline update, suggesting that excessive rates may be associated with a lower rate of return of spontaneous circulation (ROSC). In addition, an upper limit of compression depth is introduced based on a report linking increased non-life-threatening injuries with excessive compression depth. Among adult victims of cardiac arrest, it is advisable for rescuers to perform chest compression at the rate of 100 to 120/min (Class IIa, LOE C-LD). Addition of upper limit of compression 1 is the result of a large registry study, adding extremely fast compression rates with insufficient compression depth. During manual CPR, rescuers should perform chest compression at a depth of at least 2 inches or 5 cm for an average adult, while avoiding excessive chest compression depth (more than 2.4 inches [6 cm]) (Class 1, LeoE C-LD). The addition of an upper limit of compression depth to 1 after the publication's review suggesting potential damage from excessive chest compression depth (6 cm, or over 2.4 inches). Compression depth can be difficult to judge without the use of response tools, and identifying upper limits of compression depth can be challenging. In adult cardiac arrest, the total presock and postshak stagnation in chest compression should be as small as possible (Class 1, LeoE C-LD) because smaller stagnation can be associated with greater shock success, ROSC, and, in some studies, higher survival for hospital discharge. The need to reduce such stagnation has found more emphasis in this 2015 guidelines Update.In adult cardiac arrest with an unsafe airway, with a target of at least 60% (Class IIB, LoE C-LD), with the goal of as high a chest compression fraction as possible. This goal to update the 2015 guidelines is to limit compression interruptions in addition to compression fractions and to maximize coronary perfusion and blood flow during CPR. For patients with known or suspected opioid addiction who have a certain pulse but have no normal breathing or only gasping (i.e., a respiratory arrest), in addition to providing standard BLS care, it is advisable to administer intramular or intranacil naloxone (Class IIA, LO C-LD) for properly trained BLS providers. It is advisable to provide opioid overdose response education to individuals at risk for opioid overdose in any setting (Class IIA, LoE C-LD). For more information, see Part 10: Special Circumstances of Resuscitation. For ohca seen with a shock rhythm, it may be advisable for Emergency Medical Service (EMS) systems with priority-based, multi-tiered response to delay in positive pressure ventilation by using passive oxygen insufflation and airway auxiliary (Class IIb, LOE C-LD) with 200 sustained compression strategies up to 3 cycles. We do not recommend regular use of passive ventilation techniques during conventional CPR for adults, as the usefulness/effectiveness of these techniques is unknown (Class IIb, LOE C-EO). However, in EMS systems that use bundles of care involving continuous chest compressions, the use of passive ventilation techniques can be considered as part of that bundle (Class IIB, LOE C-LD). It is recommended that emergency dispatchers determine if a patient faints with abnormal breathing after receiving the required To determine the location of the event (Class 1, LOE C-LD). If the patient faints with abnormal or absent breathing, it is advisable for the emergency dispatcher to assume that the patient is in cardiac arrest (class IIA, LoE C-LD). Dispatchers should be educated to identify the faintest with unusual and painful gasps in a series of clinical presentations and descriptions (Class 1, LoE C-LD). We recommend that dispatchers should provide chest compression-only CPR instructions to callers for adults with suspected OHCA (Class 1, LoE C-LD). It is advisable for healthcare providers to provide chest compression and ventilation for all adult patients in cardiac arrest, either from cardiac or noncardiac causes (Class IIB, LOE C-LD). When the victim has an advanced airway in place during CPR, rescuers now deliver 30 compression and 2 cycles of breath (i.e., they no longer interrupt compression to give 2 breaths). Instead, it may be advisable for the provider to give 1 breath every 6 seconds (10 breaths per minute), while continuous chest compression is being performed (Class IIb, LOE C-LD). When the victim has an advanced airway in place during CPR, it may be advisable for the provider to give 1 breath every 6 seconds (10 breaths per minute) while continuous chest compression is being performed (Class IIb, LOE C-LD). Instead of a series of breaths per minute it should be simple, easy to learn, remember and perform. There is insufficient evidence to recommend the use of artifact-filtering algorithms for analysis of electrocardiographic (ECG) rhythms during CPR. Their use can be considered as part of a research program or if the EMS system has already incorporated ECG distortion-filtering algorithms into its resuscitation protocol (Class IIB, LOE C-EO). It may be advisable to use audiovisual feedback devices during CPR for real-time optimization of CPR performance (Class AIIB, LoE B-R). For victims with suspected spinal cord injury, rescuers should initially use manual spinal motion restrictions (e.g., placing 1 hand on either side of the patient's head to hold it still) rather than stabilization devices, because the use of stabilization equipment by lay rescuers can be harmful (Class III: Damage , LOE C-LD). Optimal method to ensure adequate depth of chest compression during knowledge interval manual CPR the duration of chest compression after which ventilation should be included when using hand only CPRThe optimal chest compression using the advantage option of partial CPR reaction devices to enhance patient survival 6: Alternative techniques and accessories for cardiopulmonary resuscitation High quality traditional CPR (manual chest compression with rescue breath) Normal cardiovascular production and generates about 25% to 33% of oxygen distribution. A variety of options and helpers have been developed for traditional CPR The goal of increasing coronary and cerebral perfusion during resuscitation from cardiac arrest. Since the 2010 guidelines were published, many clinical trials have provided new data on the effectiveness of these options. Compared with traditional CPR, many of these techniques and equipment require special equipment and training. Some cardiac arrest patients have been tested only in highly selected subgroups; This selection should be taken care of when rescuers or health care systems consider the implementation of the equipment. Important New and Updated Recommendations Resuscitation Results Consortium (ROC) Prehospital Resuscitation Barrier Valve and Initial vs. Delayed Analysis (Primad) Study (N=8718) 14 failed to demonstrate better results with the use of a barrier limit device (ITD) when compared to the use of a simulated device as an assistant to conventional CPR. This negative high-quality study inspired Class 3: no benefit recommendation regarding regular use of ITD. A large randomized controlled trial evaluated the use of active compression-decomment CPR plus an ITD.15, the writing group challenged ITD due to the interpretation of the true clinical impact of active compression-decomment CPR as well as wide confidence gaps around impact estimation and also due to methodological concerns. The study's discovery of better neurologically intact survival, however, supported a recommendation that this combination be a reasonable option with available devices and properly trained providers. Comparing the use of mechanical chest compression devices with traditional CPR, three randomized clinical trials have been published since the 2010 guidelines. None of these studies demonstrated the superiority of mechanical chest compression over conventional CPR. Manual chest compression remains the standard of care for the treatment of cardiac arrest, but mechanical chest compression devices can be a reasonable alternative to use by properly trained personnel. The use of mechanical chest compression devices can be considered in specific settings where delivery of high-quality manual compression can be challenging or dangerous for the provider (for example, prolonged CPR during hypothermic cardiac arrest, CPR in moving ambulance, CPR in angiography suite, CPR during preparation of ECPR), provided rescuers strictly limit blockages in CPR during deployment and removal of the device (class ICO). , Loe C-EO). Although a number of observational studies have been published documenting the use of ECPR, no randomized controlled trials have evaluated the impact of this therapy on survival. Is knowledge interval better than manual chest compression in particular situations such as mechanical chest compression devices such as a moving ambulance, prolonged CPR, or procedures such as coronary angiography? What is its impact ECPR as part of the system of care for OHCA? Part 7: Major changes in adult Advanced Heart Life Support 2015 Advanced Heart Life Support (ACLS) guidelines include recommendations about prognostication during CPR based on end-tidal carbon dioxide measurements, use of vasopressin during resuscitation, time of epinephrine administration, stratified from surprising or non-shock rhythms, and the possibility of bundling steroids, vasopressin and epinephrine administration for the treatment of IHCA. In addition, vasopressin has been removed from the pulseless arrest algorithm. Recommendations about physical monitoring of CPR were reviewed, although there is little new evidence. Important new and updated recommendations, based on new data, were strengthened the recommendation for the use of maximum viable induced oxygen during CPR. This recommendation applies only when CPR is underway and does not apply to post-ROSC care. New 2015 guidelines continue to state that physical monitoring during CPR may be useful, but there is yet to be a clinical trial demonstrating that the goal is to improve results based on physical parameters that directED CPR based on target. Recommendations for ultrasound use during cardiac arrest are largely unchanged, except for the obvious previsit that the use of ultrasound should not interfere with the provision of high-quality CPR and traditional ACLU therapy. Continuous wave capacitography class 1 was recommended to confirm the placement of endotrecci tubes. Ultrasound was added as an additional method to confirm the endotrekyal tube placement. The defibrillation strategies addressed by the 2015 Ilcor Review resulted in minimal changes in the defibrillation recommendations. The recommended class for the use of standard dose epinephrine (1 mg every 3 to 5 minutes) was unchanged, but reinforced by a new potentially randomized clinical trial that demonstrated survival for better ROSC and hospital admissions that were insufficiently driven to measure the impact on long-term results. Vasopressin was removed from the ACLS cardiac arrest algorithm in the form of vasopressor therapy in recognition of equivalence of effects with other available interventions (e.g., epinephrine). This revision valued the simplicity of the approach toward cardiac arrest when 2 were found to be equivalent to therapy. The recommendations for the time of epinephrine administration were updated and levelized based on the initially presented rhythm, identifying the possible difference in rogofizological disease. For people with a non-jerk rhythm, it may be advisable to administer epinephrine as soon as possible. For those with a shocked rhythm, there is insufficient evidence to make a recommendation about the optimal timing of epinephrine administration, because defibrillation is a major focus of resuscitation. In Steroid Use The arrest is controversial. At OHCA, the administration of steroids did not improve survival for hospital discharge in 2 studies, and regular use is of uncertain benefit. Data about steroid use for IHCA were more unpleasant. In 2 randomized controlled trials led by the same investigators, a pharmacologic bundle that consisted of methylpredinsolone, vasopresin

20152015 ACS has not been established in noroxic patients. In prehospital, ED and hospital settings, a halt of complementary oxygen therapy may be considered in noroxic patients with suspected or confirmed acute coronary syndrome (Class IIB, LOE C-LD. Update for 20152015151515AcSwhere in Arms is available as part of a stemy system of pre-hospital fibrinolisis care, And fibrinolysis is an alternative treatment strategy in the hospital, it is advisable for pre-hospital fibrinolysis administration when transportation time is more than 30 minutes (class IIa, LOE B-R. 20152015 update for medical intervention in ACSWhere pre-hospital fibrinolysis care and available as part of the STEMI system of direct transportation to a PCI center. Available, prehospital triage and transportation can be directly preferred in the PCI Center due to small relative decrease in the incidence of intracranial hemorrhage without evidence of death benefits for either therapy (Class IIb), LOE B-R. 20152015 Treatment of patients with the new suspected STEMI for therapy intervention in ACSIn, the joint application of fibrinolytic therapy immediately after PCI (as opposed to immediate PCI alone) is not recommended. (Class III: Disadvantages, LOE B-R. ACSIf fibrinolytic therapy is provided new for 20152015 Weapons interventions, immediate transfer to a PCI centre for cardiac angiography within 3 to 24 hours can be considered (Class IIb, LOE C-LD). 20152015 THERAPY intervention in ACSRegardless is new to whether symptoms are known onset time, The interval between first medical contact and refueling should not exceed 120 minutes (Class 1, LOE C-EO. 20152015 ACSIn STEMI symptoms introduced within 2 hours of onset new for PatientTherapeutic Intervention, ppci instead of immediate fibrinolysis may be considered when the expected delay for PPCI exceeds 60 minutes (Class IIb C-LD, LOE. 20152015 ACSIn STEMI symptoms updated forTherapeutic intervention in patients introduced within 2 to 3 hours after onset, Either immediate fibrinolysis or PPCI may be justified involving a possible delay of 60 to 120 minutes (Class IIb, LOE C-LD). 20152015 ACSIn STEMI symptoms may be justified for Further intervention in patients introduced within 3 to 12 hours after onset of symptoms , ppci's performance could be considered to include possible delays of up to 120 minutes Early Fibrinolisis (Class AIIB, LoE C-LD) compared to 20152015 ACSIn UPDATE for therapy intervention in STEMI patients when long delays for PPCI are anticipated (over 120 minutes), a strategy of immediate fibrinolysis early regular (within 3 to 24 hours) angiography and PCI if indicated, is justified (Class IIb, LOE B-R). 20152015 ACSIn update to introduce adult patients with STEMI in ED of a non-PCI-enabled hospital, we recommend immediate transfer without fibrinolysis from the initial facility, rather than with immediate fibrinolisis in the initial hospital only with ischemia-driven CCI (Class 1, LOE B-R. ACSWhen STEMI patients may not be transferred to a PCI-enabled hospital at a time, fibrinolytic therapy with regular transfer to angiography may be an acceptable option for immediate transfer to PPCI (Class IIb), LOE C-LD. 20152015 ACSWhen fibrinolytic therapy is administered to a stemi patient in a non-PCI-competent hospital, It may be advisable to transport all postfibrinolysis patients to early routine angiography in the first 3 to 6 hours and transport postfibrinolysis patients instead of 24 hours only when they need ischemia-guided angiography (class AIIB, LOE B-R 20152015 Hospital Reprofuse Decisions For New ROSCCoronary Angiography Should Be Performed After Accidental Performance (Rather Than Later Hospital To stay in or not at all) for OHCA patients with suspected cardiovascular etiology and ST height on ECG (Class 1, LOE B-NR). Updated for 20152015RosCEmergency is justified for selecting coronary angiography following the refugee decision (e.g. electrically or hemdynamically insert) adult patients who are in a coma after ohca of suspected heart origin but without ST height on ECG (Class IIa, LOE B-NR). Update for 20152015 Update for 20152015 After RosCCoronary Angiography is justified in cardiac arrest patients where coronary angiography is justified regardless of whether the patient is in a coma or is awake (Class IIa, LOE C-LD. 20152010Prespital ECGsIf updates for providers are not trained to explain a computer report to 12-lead ECG, field transmission of ECG or received hospital (Class 1 , LOE B) is recommended. The following recommendations, which were not reviewed in 2015, were not reviewed in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 10: Acute Coronary Syndrome. 2010Prespital Fibrinolysis is strongly recommended that the system operating fibrinolytics in the prehospital setting include the following features: protocols using fibrinolitic checklist, 12-lead ECG acquisition and interpretation, experience in advanced life support, communication with the receiving institution, medicine. With training and experience in stemy management, And continuous quality improvement (Class 1, LOE C) 20152010Prispital Triage and EMS Hospital DestinationIf PCI is not reviewed in the chosen method of refueling for the pre-hospital STEMI patient, it is advisable that patients transport directly to the nearest PCI facility, bypassing the closer EDs as necessary, in systems where the time interval between first medical contact and balloon time <90 minutes and transport time is relatively low (i.e., <30 minutes) (Class IIa, LOE B) should be efficient because if the patient has a STEMI, the goals of the refuge are to administer fibrinoticics within 30 minutes of arrival (30 minutes interval door-to-drug) or provide PCI within 90 minutes of arrival (if the patient has a STEMI , then the goals of the refuge are to administer fibrinolytics within 30 minutes of arrival (30 minutes gap door-to-drug) or provide PCI within 90 minutes of arrival (90 Minute interval door-to-balloon) (Class 1, LOE A) 20152010Focused evaluation and not reviewed in the ED Risk Stra This initial evaluation recommended that biomarkers should be remetered between 6 to 12 hours after symptomatic onset (class 1, LOE A). A door-to-needle time (the beginning of the fibrinolitic agent) <30 minutes is recommended- first better (Class 1, LOE A)) 20152010STEMIConsultation delay is not reviewed in medicine and is linked to increased hospital mortality (Class IIb), LOE B). 20152010 Cardiac biomarker If biomarkers initially symptoms are negative within 6 hours of onset , it is for PCI and have an elevated risk for clinical events (Class 1, LOE A) have not been reviewed in 20152010. Early aggressive tactics for early invasive strategies (i.e., clinical angiography with the intention of revascularing) are indicated in non-ST-height ACS patients who have refractory angina or hemodynamic or electric instability (without severe comorbidity or contraindications to such procedures) (Class 1, LOE B) has not been reviewed in 20152010 Initial aggressive strategies for processing 20152010Indicators initially stable in a selectively aggressive) strategy to non-ST-altitude ACS patients (severe comorbidities for such procedures or Can be considered as a treatment strategy for without differences), which have an elevated risk for clinical events, including abnormal troponin height (class AIIB, LOE B). Chest Pain Unit Modelin patients not reviewed in 20152010 can be recommended as a safe and effective strategy for evaluating patients with possible ACS, clinical biomarkers, and nonischemic ECG, chest pain observation protocol ED (Class 1, LOE A). fibrinolysis is not reviewed in Advertisement, ED doctor should administer fibrinolitics to eligible patients as soon as possible as per the predetermined process of care developed by ED and cardiology staff (class 1,). LOE A) 20152010 Not reviewed in The Fact inFibrinolytics, fibrinoletic therapy is generally not recommended for patients presenting between 12 and 24 hours after the onset of symptoms late and based on the results of EMERAS tests, continued ischemic pain is present with continued ST-segment height (Class IIb, LOE B). The Review in 20152010 has not been reviewed should not be administered to patients who present more than 24 hours after the onset of symptoms. Review in 2 on 0152010Cutaneus Coronary Intervention (PCI) with or without stent placement, The treatment of choice for the management of STEMI is when it can be effectively done with an efficient PCI facility (75 pcs per year) <90 minutes= by= a = a = skilled= provider = (performing=>(performing=>, (>200 PCIs perform annually, of which at least 36 are primary PCI for STEMI) (Class 1, LOE A) not reviewed in 20152010PCI after ROSC Cardiac ArrestIt is justified to include cardiovascular catheterization and coronary angiography in standardized post-cardiac arrest protocols improve the survival of neuroscience in this patient group as part of a holistic strategy (Class IIa , LOE B) 20152010PCI not reviewed in 20152010PCI after ROSC After Cardiac ArrestAngiography and/or CARDIAC ArrestAngiography and/or CARDIAC ARREST. LOE B). 20152010PCI not reviewed in 20152010PCI vs Fibrinolytic TherapyIn Summary, for patients presenting in 20152010, 12-lead ECG after ROSC after ROSC should be performed as soon as possible. , the reprefion should be started as soon as possible - from the chosen method <30 minutes door-to-needle) (Class I, LOE A).not reviewed in 20152010PCI Versus Fibrinolytic TherapyFor those patients with a contraindication to fibrinolysis, PCI recommended despite the delay, rather than foregoing reperfusion therapy (Class I, LOE A).not reviewed in 20152010ClopidogrelOn the basis of these findings, providers should administer a loading of clopidogrel in addition to standard care (aspirin,oagulants, and reperfusion) for patients determined to have moderate-to-high-risk non-ST -segment minutes = door-to-needle)= (class = i, = loe= a). not = reviewed = in = 20152010pci = versus = fibrinolytic = therapyfor = those patients = with = a = contraindication = to = fibrinolysis, = pci = is = recommended = = the = delay, = rather = than = foregoing = reperfusion = therapy = (class = i, = loe = a).not= reviewed = in = 20152010clopidogrelon = the = basis= of = these = findings ,= providers = should= administer= a= loading= dose= of= clopidogrel= in= addition= to= standard= care= (aspirin,= anticoagulants,= and reperfusion)= for= patients= determined= to= have= moderate-= to= high-risk= minutes door-to-needle) (Class I, LOE A).not reviewed in 20152010PCI Versus Fibrinolytic TherapyFor those patients with a contraindication to fibrinolysis, PCI recommended despite the delay, rather than foregoing reperfusion therapy (Class I, LOE A). Not reviewed in 20152010ClopidogrelOn the basis of these findings, providers should administer a loading dose of clopidogrel in addition to standard care (aspirin, anticoagulants, and reperfusion) for patients determined to have moderate- to high-risk non-ST-segment > Independent (Class 1, LOE A).20152010PCI vs FibrinolyticTherapy Primary Review in PCI not before by an experienced operator A reasonable expert position that is performed at a high volume center within 90 minutes of medical contact is justified, as it improves morbidity and mortality immediately </90> Urgent </90> ACS and STEMI (Class 1, LOE A) have not been reviewed in 20152010ClopidogrelIt suspected ACS (without ECG or cardiac marker changes) which have hypersensitivity or major gastrointestinal intolerance (Class IIa, LOE B) 20152010ClopidogrelProviders that ed patients up to the age of 75 years with stemi receiving aspirin should administer 300 mg oral dose of clopiderel, heparin, and fibrinitis (class 1, LOE B) not reviewed. 20152010Prasubrelprasugar (60 mg oral loading dose) can not be reviewed, Which can be substituted for clopidorel after angiography in patients prescribed for non-ST-segment height ACS or STEMI which are more than 12 hours before the planned PCI (Class IIA) symptoms are not reviewed in 20152010Supsudy there is no direct evidence for the use of Prasrel in ED or prehospital settings. In patients who are not at high risk for bleeding, the administration of prasubrel (60-mg oral loading dose) before angiography in patients, can be substituted for clopidorel (class IIa, LOE B) for the administration of early symptoms after stemy has been prescribed for ≤12 hours. Not reviewed in 20152010, Because aspirin should be administered as soon as possible after suspected, patients' symptoms it is advisable for EMS dispatchers to instruct patients with no history of aspirin allergies and without active or recent gastrointestinal bleeding signs for chewing aspirin (160 to 325 mg) while awaiting the arrival of MMS providers (Class IIA,). LOE C) 20152010Nitil EMS CareIf does not have a review of patient dyspnic, hypoxemic, or clear signs of heart failure, providers should perform tytrate therapy based on 94% (Class 1, LOE C), depending on the monitoring of oxyzoglobin saturation. 20152010IN EMS Carems is not reviewed in providers. LOE C])) is not reviewed in 20152010, the stilioal EMS CareMorphine is indicated in stemy when chest discomfort is unresponsive to nitrates (Class 1, LOE C); These patients who are unfit for fibroynolytic therapy or who are in cardiogenic shock (Class 1, LOE C) are not reviewed in a large registry (Class IIb, LOE C) in a large registry that should be used with caution in unstable angina (UA)/NSTEMI, which has not been reviewed in 20152010Interfacility Transfer Transfer Transfer Transfer Transfer of high-risk patients in transfer transfers that received primary communication with fibrinus is advisable gnolytic therapy (Class IIa, LOE B). These findings of 20152010TIMI risk score not reviewed confirm the value of TIMI risk scores as a guide to therapeutic decisions (Class IIa, LOE B). 20152010 Not reviewed in early strategy for (Class IIb) 20152010Indicators in an initial Decision to make decision The strategy in these patients (vs. initial aggressive) is not reviewed in physician and patient preference (Class IIb, LOE C). 20152010 to detect coronary ischemia and CADFor ED/CPU patients who are suspected of having ACS, Nonischemic ECG and negative biomarkers, is a noninvasive test for physical evaluation of inexcusable myocardial ischemia or coronary arteries (e.g., computed tomography CT] angiography, cardiac magnetic resonance, myocardial perfusion imaging, stress echocardiography) ED (Class IIa, LeoE B) may be useful in identifying patients suitable for discharge from ED (Class IIA, LEOE B). 52010AD tests to detect coronary ischemia and CADMPS can also be used for risk stratification, The intermediate probability of cardiovascular events (Class IIa, LOE B) has not been reviewed in 20152010, especially according to traditional cardiovascular markers in low-risk use of MDCT angiography for patients with coronary ischemia and CADThe selected low risk may be useful to allow for safe early discharge from ED (Class IIA,). LOE B) 20152010 does not review the safety of the risk of discharge and major adverse cardiovascular events after discharge from ED/CPUPE-derived risk scoring system, which are useful for patient-derived risk scoring system use forecast (Class 1, LOEA), but are not recommended to identify patients who are ED (Class 3,, LOE c) 20152010Aspirin and Nonsteroidal anti-inflammatory DrugsTherefore did not review, unless the patient has a known aspirin allergy or active gastrointestinal hemorrhage, all patients with suspected ACS (Class 1) as soon as possible nonenteric aspirin should be given , LOE A) 20152010 Aspirin and Nonsteroidal Anti-Inflammatory DrugsNSAIDs not reviewed (in addition to aspirin), both unselected as well as COX-2 selective agents , should not be administered during hospitalization for stemi because of the increased risk of mortality, reinfarction, hypertension, heart failure, and myocardial rupture associated with their use (Class III, LOE C). Patients with ischemic discomfort not reviewed in 20152010Nitroglycerin (or Glycricil Trinitrate) should receive 3 doses of sublingual or aerosol nitroglycerin in 3-to-5 minute interval until pain relieves or low blood pressure limits its use (Class 1, LOE B). 20152010Nitroglycerin (or glyceryl trinitrate) reviews no hypotension (SBP<90 mm= hg= or = ≥30= mm= hg= below = baseline), = extreme= bradycardia=></90>, </50 bpm),= or = tachycardia=in= the = absence= of= heart= failure= (=>100 BPM) in patients with nitrate use and violation of (Class III) in patients with correct ventricular infection (Class III, LOE C) 20152010AnalgesiaProviders have not been reviewed, Should administer analgesics such as intravenous morphine, postural to nitrates for chest discomfort. morphine (Class 1, LOE C) is the preferred analgesic for patients with. </50> </50> Receptor blocker β-blocker therapy can be considered appropriate in specific conditions such as tachyarrhythmias (Class IIa, LOE B) 20152010 Not reviewed in 20152010 - In the absence of adrenergic receptor blockersin differences, PO β-blockers should be administered within the first 24 hours for patients with suspected ACS (Class 1, LOE A). Review in 20152010 - It is advisable to introduce oral β-blockers with low doses after stabilizing Adrenergic receptor blockerciit before the patient's discharge (Class IIa, LOE B). UA/NSTEMIFor with NSTEMI not reviewed in 20152010 managed with a planned initial conservative view of treatment recommendations for in-hospital patients, Managed with a planned aggressive approach for UA/NSTEMIFor in 20152010 either fondaparinux (Class IIa, LOE B) or enox 20152010 are reasonable options for UFA (Class IIa, LOE A) not to be reviewed in 20152010. , either enoxaparin or UFH are the appropriate options (Class IIa, LOE A). Recommendations for UA/NSTEMIFondaparinux have not been reviewed in 20152010 can be used in the installation of PCI, But the co-administration of UFH alone requires and has not been reviewed in UFH (Class IIb, LOE A) 20152010 treatment recommendations for patients in hospital with NSTEMI and inadequacy of kidneys, bivalirudin or UFH may be considered (Class IIb, LOE A). Treatment recommendations for patients in hospital with NSTEMI where anticoagulant therapy are not restricted, fondaparinex (class IIA, LEOI B) or bivalirudin (class IIA, LoE A) are reasonable and can be considered (Class AIIB, LOEC) 20152010 Patients with stacenois managed with fibrinolis in hospital cannot be reviewed for mentopyperrf, it is advisable to administer axinap instead of UFH (Class IIA, LOE A). In addition to Enoxapine in 20152010, Managed with fibrinolysis for prehospital patients with STEMI, instead of UfH can be considered auxiliary anaxoparin (class AIIB, LOE A) not reviewed in 20152010Enoxaparin patients aged initially be discontinued for treatment with enoxaparin and vice versa due to increased risk of bleeding (Class III, LOE C). Not reviewed in 20152010Enoxaparinin Young Patients <75 years Initial dose of anoxaparin is 30 mg IV category 1 mg/kg SC (first SC dose immediately after 4th bolus) (Class AIIB, LOE A). Not reviewed in 20152010 has not been reviewed in 20152010 ≥ 75 mg/kg sc can be treated with anoxeperin every 12 hours without an initial IV bolus (Class IIb), LOE B). Has not been reviewed in 20152010, Enoxaparin patients with impaired renal function (creatinine clearance <30 mL/min) can be given once daily (Class IIb, LOE B) With known impaired renal function can be optionally managed with UFH (Class IIb, LOE B). 20152010Fondaparinux Not Reviewed inFondandaparinux (initially 2.5 mg SC after 2.5 mg IV once daily) non-fibrin - especially thrombolytics (IE, streptokinase), provided creatinine does not review in 3 mg/dl (Class 1, Leoe B). The stunce undergoing contemporary PCI (i.e., undergoing a 20152010 review is heparin versus low molecular-weight heparin with PPCI). The additional widespread use of glycoprotein AIIB/IIIa inhibitors and a thinopiridine can be considered a safe and effective alternative to UFH (class IIB, LOE B). Review in 20152 No 010Inverted heparin vs. low molecular-weight heparin should initially be treated with anoxeperin with PPCI and vice versa to avoid increased risk of bleeding. Fondaparinex can be considered as an alternative to UFH, however, with fondaparinex alone the risk of catheter thrombi increases. Additional UFH (50 to 100 U/kg bolus) could help avoid this complication (class AIIB, LOE B), but using these two agents is not recommended on UFH alone. 20152010 is not reviewed in 20152010With low molecular weight Heparin STEMIFor fondaparinux and ppci in enoxaparin it is necessary to adjust the dosage in patients with renal impairment. Bivalirudin can be considered as an alternative to UFH and GP IIb/IIIa inhibitors (Class IIb, LOE C). 20152010ACE inhibitors and ARBs are not reviewed in hospital administration of an oral ACE inhibitor in the absence of hypotension within the first 24 hours after the onset of symptoms in patients with pulmonary congestion or LV injection < (SBP<100 mm HG or ≥30 mm HG below baseline) (Class 1, LOE A) 20152010ACE inhibitors and ARBs has not been reviewed in ARBs in the hospital, which may be useful for all other patients with or without early reprofion therapy (Class 1, LOE B). 20152010 ARBs in hospitalIV administration of ACE inhibitors and ACE inhibitors have not been reviewed because the risk of hypotension differs in the first 24 hours (Class III, LOE C). Prehospital SettingIn did not review in 20152010, although ace inhibitors and ARBes have been shown to reduce the long-term risk of death in patients suffering an AMI, there is insufficient evidence to support the regular initiation of ACE inhibitors and ARBs in the prehospital or ED setting (Class AIIB, LOEC). 20152010Hmg coenzyme a reductionase inhibitor (statin) has not been reviewed, there is very little data to suggest that this therapy should be initiated within ED; However, the initial initiation of statin therapy (within 24 hours of presentation) is recommended in patients with ACS or AMI (Class 1, LOC). 20152010HMG Coenzyme in a Reduction Inhibitor (Statin) if patients are already on statin therapy, Continue Therapy (Class IIb, LOE C) 20152010HMG Review in Coenzyme Not a reductase inhibitor (Statins) statin index should not be discontinued during hospitalization unless the differences (Class III, LOE C) were reviewed in 20152010. Intensive (target LDL value Optimal 70 mg/DL) statin treatment should be introduced within the first 24 hours of the start of the ACS event (e.g., immediately after hospital admission) in all patients offered with any form of ACS (e.g., from proven intolerance) (Class 1, LOEA). Not reviewed in 20152010Glucose-insulin-potassium This time there is very little evidence to suggest that this intervention is helpful (class IIb, LOE C) 20152010 The practice of prophylactic administration of lidocaine not reviewed in ventricular rhythm disturbances is not recommended (Class III, LOE A) has not been reviewed in 20152010 Ventricular Rhythm DisturbancesSotalol has not been adequately studied (class IIb, LOE C) 20152010 Ventricular rhythm has not been reviewed, which does not appear to improve survival in small doses and may increase mortality in high doses when used early in patients with suspected myocard LOE C) 20152010Ventricular rhythm disturbances are not reviewed in prehospital or ED (Class III , Lo Lo) does not recommend prophylactic antiarrhics for patients with suspected ACS of myocardial infection. 20152010 Ventricular Rhythm OfficersRution IV administration has not reviewed β-blockers to patients without hemodialymic or electric contraction, linked to lower incidences of primary VF (Class AIIB), LOE C). 20152010 Not reviewed in Ventricular Rhythm Disturbances This is a judicious clinical practice to maintain serum potassium >4 mQ/L and magnesium >2 mEq/L (Class IIB,). LOE A) Not reviewed in 20152015Part 10: Resuscitation associated with pregnancy for pregnant woman in cardiac arrest 2015Cardiac special circumstances of arrest provide for relief of high quality CPR and aortic compression (Class 1, LOE C-LD. 20152015 for new pregnancy-linked cardica arrest if the fundus height is at or above the level of umbilicus, can be beneficial in relieving aortic compression during manual LUD chest compression (Class IIa, LOE C-LD). 20152015 New to cardica arrest associated with pregnancy because immediate ROSC can not always be achieved, Local resources for a PMCD should be called as soon as cardiac arrest is recognized in a woman in the second half of pregnancy (class I, LOE C-LD. Cardiac arrest and training associated with the new pregnancy for 20152015 are the key to a successful response to such rare and complex events. Care Teams To manage these conditions can be said to develop and practice standard institutional responses to allow for smooth delivery of resuscitation care (new cardica arrest for Class 1, LOE C-EO. 20152015 associated with pregnancy during cardiac arrest, if pregnant woman with a fundus height in or above the womb has not achieved ROSC with normal resuscitation measures plus manual LUD , it is advisable to prepare to empty the uterus while resuscitation continues (Class 1, LOE C-LD). 20152015 New in cardiac arrest in conditions such as non-reassuring maternal trauma or prolonged pulselessness associated with pregnancy, in which maternal resuscitation efforts are clearly futile, PMCD (Class 1 There is no reason to delay the performance of the LOE C-LD). 20152015Cardiac arrest should be considered 4 minutes after the start of maternal cardiac arrest or resuscitation efforts associated with the new pregnancy (for unwitcative arrest) no ROSC (Class IIa, LOE C-EO). Update for 20152015 Cardiac Arrest Confirmed as Presuposes of Cardiac Arrest Cardiac Arrest, Thrombolysis, Surgical Embolectomy, and Mechanical Embolectomy Associated with PE Patients 20152015Cardiac Arrest AppropriateEmergency Treatment Options (Class IIa) , new to LOE C-LD. The 20152015 cardiac arrest is pulmonary embolismthrombolis can be new beneficial for cardia arrest, even if chest compression is provided (Class IIa, LOE C-LD). New cardica arrest for 20152015 can be considered associated due to pulmonary embolismthrombolis when cardiac arrest PE (LOE C-LD. Updated For 20152015 It is advisable to provide cardias or respiratory arrest opioid overdose response education linked to opioid overdose, either alone or in tandem with naloxone distribution and training, new to individuals at risk for opioid overdose (Class IIa, LOE C-LD). It is advisable to base this training on first aid and non-healthcare provider BLS recommendations, rather than more advanced practices for new healthcare providers (Class IIa) for respiratory arrest linked to 20152015Cardiac or opioid overdose. C-EO, LOE. Standard first aid and non-healthcare provider BLS Protocol (Class IIb, associated with opioid overdose administration of new IM or all unresponsive opioids associated with or all unresponsive opioids for 20152015Cardiac or respiratory arrest) LOE C-EO. 20152015Cardiac or new opioid overdoses for respiratory arrest linked to ovittims that respond to the Naloxone administration should use Advanced Health Services (Class 1) C-EO, LOE. 20152015Cardiac or associated with opioid overdose for patients with newly known or suspected opioid addiction for respiratory arrest, who do not have a certain pulse, but no normal breathing or only gasping (i.e., a respiratory arrest), in addition to providing the standard Care, it is advisable for properly trained BLS healthcare providers to administer in IM or naloxone (Class IIa, LOE C-LD). The new Naloxone Administration (Class 1, LOE C-EO) for respiratory arrest associated with 20152015Cardiac or opioid overdose, with a focus on high-quality CPR (compression plus ventilation). For respiratory arrest associated with 20152015Cardiac or opioid overdose may be justified in New IM or Naloxone based on the possibility that the patient does not have cardiac arrest (Class IIB, LOE C-EO). New for 20152015 and compression arrest associated with opioid overdose should not delay access to more advanced medical services while awaiting the patient's response to naloxone or other interventions (Class 1,LOE C-EO). 20152015Cardiac or new to respiratory arrest associated with opioid overdose, the patient refuses further care, responding to the victim's naloxone administration should use advanced health services (Class 1, LOE C-EO. Is new to 20152015 and respiratory arrest associated with opioid overdose-ventilation maskation should be maintained until spontaneous breathing returns. , and the standard ACLS measure should continue if spontaneous breathing does not occur (Class 1, LOE C-LD). New for 20152015 Associated with the return of ROSC or spontaneous breathing after opioid overdose for 20152015 or respiratory arrest, patients should be seen in a health care setting as long as the risk of recurrent opioid poisoning is low and the patient's level of consciousness and vital signs and vital signs is normalized (Class 1, LOE C-LD). 20152015Seric or opioid overdose linked to respiratory arrest, if recurring opioid poisoning develops, an infusion of repeated small doses or naloxone can be beneficial in health settings (Class IIa, LOE C-LD). 20152015 The new post forcardiac or respiratory arrest linked to the opioid overdose of the Holocaust administration-cardiac arrest care may be considered to achieve specific therapeutic goals of reversing the effects of long-acting opioids (class IIb), LOE C-EO. The new 20152015 for 20152015 may be justified for ILE administration for 20152015Role in the management of cardiac arrest due to the right, Concomitant with standard resuscitation care, local anesthetic is caused by bupivacaine poisoning (Class IIb, LOE C-EO) for patients with systemic toxicity and especially patients who cause pre-preventable neurotoxicity or cardiac arrest. New for 20152015 for for 20152015 patients with intravenous lipid emulsion therapy in managing cardiac arrest for 20152015 may be justified for administering ILE other forms of drug poisoning which have failed standard resuscitation measures (Class IIb, LOE C-EO). 20152015Cardiac Update for Arrest Percutaneous May Be advisable to use it during coronary intervention CPR equipment to provide chest compression to patients in cardiac arrest during PCI (Class AIIB, LOE C-EO). 20152015Cardiac Update for Arrest During Percutaneous Coronary Intervention IT may be advisable to use ECPR as a rescue treatment when initial therapy failed for cardiac arrest that PCI (class IIb, Percutaneous Coronary InterventionIntuitive guidelines during new cardiator arrest for LOE C-LD. 20152015 should include selection of suitable candidates for the use of mechanical assistance devices to ensure that these devices Be used as a bridge to recovery, surgery or transplantation, or other equipment (Class 1, LOE C-EO). The following recommendations for 2015 were not reviewed in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 12: Cardiac Arrest in Special Situations. 2010 cardiac arrest associated with asthma Therefore, since the likelihood of the effect of auto-peep in the asthma patient with cardiac arrest is quite severe, the low respiratory rate and ventilation strategy of tidal volume is reasonable (Class IIa, LOE C) 20152010Cardiac arrest cannot be considered a brief disconnection from bag masks or ventilators associated with no asthma. Arrest associated with asthma for all asthma patients with cardiac arrest, and especially for patients in which ventilation is difficult, possible diagnosis of stress should be considered and treated (Class IIa, LOE C) may be effective to relieve entrapment in the air (Class IIa, LOE C) may be effective . , LOE C)Has not been reviewed in 20152010 the potential for rapid development of arrests oropharyngeal or laryngeal edema associated with anaphylaxis, Immediate referral is recommended to a health professional with specialization in advanced airway placement (Class I, LOE C) has not been reviewed in 20152010 Cardiac arrest associated with anaphylaxis epinephrine should be administered quickly to all patients with signs of systemic allergic reaction by IM injection Recommended doses associated with cardiac arrest anaphylaxis, especially hypotension, airway inflammation, or difficulty breathing (Class 1, LOE C) 0.2 to 0.5 mg (1:1000) im in the absence of clinical improvement is to be repeated every 5 to 15 minutes (Class 1, LOE C). Not reviewed in 20152010, Cardica arrest associated with anaphylaxis immediate use of both anaphylaxis and cardiac arrest epinephrine autoinjector is recommended if available (Class 1, LOE C) not reviewed in 20152010, cardiac arrest associated with anaphylaxis planking is recommended for advanced airway management including a surgical airway (Class 1, LOE C) is recommended. Has not been reviewed in 20.15.2010. , LOE c) 20152010Cardiac arrest not reviewed in When an IV line is in place associated with anaphylaxis, it is advisable to consider route IV as an alternative to the IM administration of epinephrine in anaphylactic shock (Class IIa, LOE C). Has not been reviewed in 20152010. Close hemodynamic monitoring is recommended (Class I, LoE b)) 20152010Cardia's arrest has not been reviewed which is associated with anaphylaxis infusion of epinephrine, a reasonable alternative of IV bolus for the treatment of anaphylaxis in patients is cardiac arrest (class IA, not in low c) and cannot be considered in posterst management (class AIIB, LOE C). Reviews in 20152010Cardiac arrest norepinephrine, methoxamine, and metaraminol associated with anaphylaxisAlternative vasoactive drugs (vasopressin), and metaraminol) can be considered secondary to anaphylaxis in cardiac arrest that does not respond to epinephrine (class AIIB, LOE C). Has not been examined in 20.15.2010. , has succeeded in managing the patient with β-adrenales, and IV corticosteroid anaphylaxis and can be considered in cardiac arrest due to anaphylaxis (Class IIb, LOE C). Has not been reviewed in 20152010 cardica arrest associated with anaphylaxiscardiopulmonary bypass has been successful in reporting separate cases of anaphylaxis after cardiac arrest. The use of these advanced techniques can be considered in clinical situations where the necessary professional skills and equipment are immediately available (class IIB, LOE C) not reviewed in 20152010Cardiac arrest associated with pregnancy-mask ventilation is especially important in pregnancy before intubation with 100% oxygen (Class IIa, LOE B) 20152010 Not reviewed in 20152010 cardiac arrest associated with pregnancy 20152010 cardasi arrest monitors associated with pregnancy are attached during cardiac arrest in a pregnant woman , it is advisable to remove them (class AIIB, LOEC)) should be done in collaboration with the obstetrics review of cardasi arrest associated with pregnancy planning in 20152010 Cardia arrest, neonatal, emergency, anesthesia, intensive care, and cardiac arrest (Class 1, LOE C) not reviewed in 20152010Cardia arrest associated with pregnancy during the medical hypothermia of the pregnant patient, it is recommended that the fetus be constantly monitored for bradycardia as a possible complication, and obstetrics and neonatal counseling should be sought (class 1 Cardica arrest not reviewed in 20152010 Without pe associated and known PE with pulmonary embolism patients with cardiac arrest, there is no benefit from regular fibrinolitic treatment given during CPR and is not recommended (Class III, LOE A) has not been reviewed in 20152010. thin addition to standard ACLS (Class IIb, LOE C) be appropriate for the above mentioned Adjuvent IV Medical Administration for Cardiotoxicity. 20152010 Review incardiac arrest no life-threatening effects of bolin administration of potassium for cardiac arrest associated with electrolyte disturbances suspected to be secondary to hypokalemia are unknown and ill advised (Class III, LOE C) is not reviewed in 20152010 Cardadiak arrests that are associated with life-threatening electrolyte disturbances of calcium (calcium chloride [10%] 5 to 10 ml or calcium gluconate [10%] 15 to 30 m 4 2 to 5 minutes more) can be considered during cardiac arrest associated with hypermesegyne (IB LOE C) 20152010Cardiac arrest has not been reviewed which is associated with life-threatening electrolyte disturbances for cardiotoxicity and cardiac arrest MgSO4 Bolus IV Push, IV magnesium 1 to 2 g is recommended (Class 1, LOE C) 20152010Cardiac arrest in the use of calcium associated with life-threatening electrolyte disturbances (calcium chloride [10%] 5 to 10 ml or calcium gluconate [10%] 15 to 30 ml 10 m IV 2 to 5 minute more) can be considered when causing hypercalcemia or hypermagnemia cardiac arrest (class IIb, LOE C) as is suspected. 20152010Cardiac arrest associated with toxic ingestions is not reviewed provides administration risk of flumazenil for patients with disenviated coma and does not recommend (Class III, LOE B) has not been reviewed in 20152010, The recommended dose of cardica arrest glucagon associated with toxic injection is 3 to 10 mg of dialect, gradually administered for 3 to 5 minutes, followed by an infusion of 3 to 5 mg/hour (0.05 to 0.15 mg per kilogram) followed by extracts from 0.05 to 0.10 mg per hour. Cardiac arrest may be considered other measures associated with administering toxic ingestions of high-dose insulin in patients with shock refractory for other measures (Class IIb, LOE C) may not be reviewed in 20152010Cardiac arrest administration associated with toxic ingestions of calcium in patients with shock refractory for other measures (Class IIb, LOE C) 20152010Cardiac not toxic ingestionHigh-insulin arrest associated with the dose, in the dosage listed in the β-inhibitor section above, may be effective for restoring hemodynamic stability and improving survival in the establishment of severe cardiovascular toxicity associated with calcium channel blocker overdose poisoning (Class IIb, LOE B) May be considered in review no 20152010Cardiac arrest not toxic ingestionsAntidogoin associated with fab antibodies serious life-threatening cardiac Patients with toxicity (Class 1, LOE B) should be administered. Arrests associated with toxic ingestions may be justified to try it's agents that have shown efficacy in managing acute coronary syndrome in patients with severe heart toxicity. β-blockers (fentoamine), benzodiazepines (lorajepam, diazepam), calcium channel blockers (verapamil), morphine and sublingual nitroglycerin can be used as necessary to control hypertension, tachycardia, and movement (class IIb, LOE B) do not support the use of another on-1 agent in the treatment of heart toxicity due to data available cocaine (Class IIb, LOE B) available arrest associated with ingestions not 20152010. 20152010Card arrest may be beneficial for benzodiazepines, nitroglycerin, and/or morphine associated with toxic injections in card arrest (Class IIa, LOE B)) 20152010Cardiac arrest not reviewed in toxic ingestionsAlthth associated with it although contradictory evidence exists, Current recommendations that pure β inhibitory drugs are not indicated in the setting of cocaine (class IIb, LOE C) have not been reviewed in 20152010Cardia arrest administration associated with toxic ingest of sodium bicarbonate for cardiac arrest due to cyclic antidepressant overdose (Class IIb, LOE C) has not been reviewed in 20152010, est of toxic ingest of 1 ml/kg Hemodynamic stability (adequate mean arterial blood pressure and perfusion) and QRS compressed (class IIb as cardica arrest associated with TheSodium bicarbonate boluses Cardici arrest linked to toxic injection, because hyperbaric oxygen therapy appears to provide little risk, available data shows that hyperbaric oxygen therapy may be helpful in the treatment of acute carbon monoxide poisoning in patients with severe toxicity (class IIb, LOE C) 20152010Cardiac review in arrest not best associated with toxic ingestions based on available evidence, treatment diets of 100% oxygen and hydroxocobalamin with or without sodium thiosulfate are recommended (Class 1, LeoE B). Cardiac arrest in accident hypothermia not reviewed in 20152010 It may be advisable to attempt further defibrillation in accordance with standard BLS algorithms concurrently with rewarming strategies (Class IIb), LOE C). It may be advisable to consider the administration of a vasopressor during cardiac arrest in accordance with standard ACLS algorithms for cardiac arrest in accidental hypothermia not reviewed in 20152010. LOE C) 20152010 does not review that cardiac arrests in avalanche victims, including additional rering when available, recommended without the above mentioned characteristics for all avalanche victims who are unlikely to survive them or with any apparent fatal traumatic injury (Class 1, LOE C). All victims of drowning in 20152010 who require any form of resuscitation (including rescue breathing alone) should be taken to the hospital for evaluation and monitoring, even if they appear alert and display effective cardiorespiratory function in the scene (Class 1, LOE C). It was not reviewed in 20152010 that a reconsideration of the cervical spinal cord is not recommended in the absence of conditions suggesting spinal cord injury (Class III, LOE B) has not been reviewed in 20152010 that regular use of abdominal thrust or hemlach maneuver is not recommended for drowning victims (Class III, LOE C)) not reviewed in 20152010 Not due to the establishment of arrest due to cardiac tamponadi in the arrest of cardia, in the absence of echocardiography, Emergency pericardiocentesis without imaging guidance can be beneficial (class IIA, LOE C) not reviewed in 20152010 Cardiac arrest Cardiac tamponderessi department may improve survival in patients with heart deficiency due to thoratomy, which are in cardiac arrest or are prerest, Especially if a pericardiocentesis needle which causes clots due to gross blood (Class IIb, LOE C) 20152010Cardiac arrest after cardiac surgery in cardiac surgery after heart surgery not reviewed for patients with cardiac arrest, it is advisable to perform resternotomy in a proper employee and equipped intensive care unit (Class IIa, LOE B) Cardiac surgery after 20152010Cardiac arrest, LOE B) Despite reports describing heart damage due to rare case possibly external chest compression, compression of the chest should not be stopped if emergency restranti is not immediately available (Class IIa, LOE c) Not Reviewed in 2015Part 11: Pediatric Basic Life Support and Cardiopulmonary Resuscitation Quality 2015 CPRBequence due to limited quantity and data quality, it may be advisable to maintain sequence from 2010 guidelines by introducing CPR with C-A-B-C (Class IIb, LOE C-EO). Knowledge gaps exist, and specific research will need to examine the best approach to introducing CPR in children. Update for 20152015Cpan of high quality CPR: chest compression rate and depth to maximize simplicity in CPR training, in the absence of adequate pediatric evidence, It is advisable to use an adult chest compression rate of 100/minute (update for Class IIa, LOE C-EO.20152015 Of high quality 20152015 Kanpan: Chest compression rate and depth Although the effectiveness of CPR response devices was not reviewed by this writing group, the group's consensus is that the possibility of using response devices helps rescuers adapt the chest enough. Rate and depth, and we suggest their use when available (Class IIb, LOE C-EO). Updated to 20152015 Component of High Quality CPR: Chest Compression Rate and Depth It is advisable that in pediatric patients (less than 1 year) rescuers provide chest compression that suppresses at least one-third of the anterior diameter of the chest. It equals about 1.5 inches (4 cm) in infants to 2 inches (5 cm) in children (Class IIa, LOE C-LD). Once children reach puberty, the recommended adult compression depth of at least 5 cm, but not more than 6 cm, is used for adolescents of the average adult size. 20152015 Update for components of high quality CPR: Compression-only CPRConval CPR (Rescue Breathing and Chest Compression) Pediatric Cardiac Arrest (Class 1, LOE B-NR. Update for 20152015Companies of high-quality CPR: Compression-only CPRThe asphyxial nature of the majority of pediatric cardiac arrest requires ventilation as part of effective CPR. However, because compression is only effective in patients with CPR a primary cardiac event, if rescuers are unwilling or unable to breathe, we recommend the rescue team perform compression-only CPR for infants and children in cardiac arrest (Class I, LOE B-NR). Updates for 2015 The following recommendations were not reviewed in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 13: Pediatric Basic Life Support. 2010 check for breathing as well as training in just time, such as an emergency response system provided by the sender, should emphasize how to recognize the difference between gasping and normal breathing; Rescuers should be instructed to provide CPR, even if the unresponsive victim occasionally gasps (Class IIa, LOE C). 20152010 Starting for an infant not reviewed in chest compression, lone rescuers (whether rescuers or healthcare providers keep) should adorn the sternum with 2 fingers placed just below the intermammary line (Class IIb, LOE C). Chest compression not reviewed in 20152010 There is no data to determine if the 1st or 2nd hand method produces better compression and better results (class IIb, LOE C), because children and rescuers come in all sizes, rescuers can use either 1 or 2 hands to compress the baby's chest. Review in 20152010 Starting after each compression in 20152010 chest compression, allow the chest to shrink completely (Class IIb, LOE B) as full chest recovery improves the flow of blood returning to the heart and thus not reviewed in CPR.20152010Open and the orientation is given using head tilt-chin lift maneuver. Both injured and non-injured victims (Class 1, LOE B). Review in 20152010 give ventilation in the airway and an infant, if you have difficulty creating an effective seal And try nose, either mouth-to-mouth or mouth-to-nose ventilation (Class IIb, LOE C). Did not review the airway in 20152010 and give ventilation either in case make sure the chest rises when you breathe. If you are only a rescuer, provide 2 effective ventilation using as low stagnation in chest compression as much as possible after each set of 30 compression (Class 1, LOE C). 20152010 For healthcare providers and others trained in 2-rescuer CPRIT in 20152010L is advisable for 2-rescuer CPRTs for healthcare providers to tailor the sequence of rescue operations for the most probable cause of arrest. For example, if arrest is seen and sudden (for example, At high risk for arrhythmia or sudden collapse in a child identified during an athletic event, the healthcare provider may assume that the victim has suddenly suffered VF-cardiac arrest and as soon as the rescuer verifies that the child is unresponsive and not breathing (or simply gasping) rescuers should immediately call the emergency response system, receive AED and then start CPR and use AED. (Class IIa, LOE C) 20152010 Review inPulse CheckIf, not within 10 seconds, you don't feel a pulse or are not sure if you feel a pulse, start chest compression (Class IIa, LOE C). Review in 20152010 No. 20152010In breathing with pulse sufficiently pulse every 2 minutes (Class IIa, LOE B) but no more than 10 seconds is spent. For healthcare providers and two individuals trained in CPR, the 20152010ventilation was not reviewed in 20152010, if there is evidence of trauma suggesting spinal cord injury, use a jaw thrust without tilting the head to open the airways (Class IIb, LOE C). 52010Oordin chest compression and ventilation delivery with minimal blockage in chest compression (Class IIA, low c). 20152010Defibrillation a manual defibrillation for infants is preferred when a shockable rhythm is identified by a trained healthcare provider (Class AIIB), LOE C) 20152010Defibrillation is not reviewed in AED with a pediatric dilute is also preferred for children of age <8 years of age. If neither is available, an AEG can be used without a dose (Class ICO, LOE C)) 20152010Bag-Mask Ventilation (Healthcare Provider) not reviewed in excessive ventilation (Class III, LOE C); Only the amount of force and tides required to use just tend to increase the chest. Not reviewed in 2015Part 12: Pediatric Advanced Life Support2015Prearrest Care UpdatesPediatric Medical Emergency Team/Rapid Response Team system facilities can be considered where child care with high-risk illnesses is updated for normally patient units (Class IIB, LOE C-LD). Updates for 2015 are not reviewed. Because its effectiveness in in-hospital settings is not well established (Class AIIB, LOE C-LD) 20152015Prearrest Care Updates New to Administration For infants and children with shock 20 ml/kg of fluid bolus is justified, including those with conditions such as severe sepsis (Class IIa, LOE C-LD) malaria and dengue (Class IE B-R). 20152015Rest Care Updates for New When Caring for Children With Severe Fever Disease (e.g. Included in Feast Testing), Critical Care Resources (ie, Mechanical ventilation and inotropic support), administration of bolus intravenous fluids should be done with extreme caution as it can be harmful (Class IIb, LOE B-R) 20152015Prearrest Care Updates Should make new revaluation for users every fluid should be reassessed after bolus (Class 1, LOE C-EO) 20152015Preterest Care Updates may be effective as the initial liquid alternative to new isotonic crystalloids or colloid resuscitation (Class IIa, LOE B-R 20152015Pretest Care UpdatesThe available evidence for critically ill infants and children that does not support regular use of atropine preintubation. It may be advisable for physicians to use atropine as a pre-therapy in specific accidental nativity when facilitating intubation to give succinylcholine as bradycardia (for example, when a neuromuscular inhibitor) (Class IIb, LOE C-LD). 20152015Prest Care UpdatesA Dosage for New 0.02 mg/kg can be considered with no minimum dose with atropine when using atropine emergency intubation (class IIb, LOE C-LD. 20152015Prearrest Care UpdatesVenoarterial for ECMO use can be considered in patients with new acute fulminant myocarditis who are at high risk of impending cardiac arrest (Class IIb, LOE C-EO. 20152015Intra-Arrest Care ForECPR can be considered for pediatric patients with new cardiac diagnosis which is IHCA in settings with existing ECMO protocol, expertise, and equipment (Class IIb, LOE C-LD) 20152015Intra - Arrest Care UpdatesETCO2 monitoring may be considered to evaluate the quality of new chest compression, but specific values have not been established to guide therapy in children (Class IIb, LOE C-LD. 20152015Intra -Arrest New to Care UpdatesMulple Variables when attempting results during prognostication of cardiac arrest (Class 1, NEW Intra-Arrest Care Updatesfor LOE C-LD. 20152015 For patients with aggressive hemodynamic monitoring in place at the time of cardiac arrest, it may be advisable for rescuers to use blood pressure New Guidance for CPR Quality (Class IIb, LOE C-EO) 20152015 Intra-Arrest Care UpdatesIt It is fair to administer epinephrine in pediatric cardiac arrest (Class IIa , LOE C-LD). 20152015Intra-Arrest Care UpdatesFor shock-refractory new to VF or pulseless VT, either amiodarone or lidocaine can be used (class IIb, LOE C-LD). 20152015Intra - Arrest Care Updates for 2 to 4 J/kg of monophasic or bifacic energy It is appropriate to use the dose. (Class IIA, LOE C-LD), but for ease of teaching, initial dose of 2 J/kg can be considered (Class IIb, LOE C-EO). Update for 20152015Intra - Arrest Care UpdatesFor refractory VF, It is advisable to increase the dosage to 4 J/kg (Class IIa, LOE C-LD. 20152015Intra-Care arrest update for UpdatesFor later for energy levels, a dose of 4 J/kg may be appropriate and high energy levels may be considered, although 10 J/kg or adult maximum dose (Class IIb, LOE C-LD) does not exceed. Update for 20152015Postarrest care UpdatesFor infants and children remaining comatose after OHCA, It is advisable to maintain either 5 days of continuous normothia (36° to 37.5°C) or to maintain 2 days of initial continuous hypothermia (32 ° C to 34 °C) after 3 days continuous normthiaria (Class IIa, LOE B-R). New for 20152015Postarrest care updates a constant measurement of temperature is recommended during this time period (Class 1, LOE B-NR). 20152015Postarrest Care UpdatesFee (temperature 38°C or higher) after Rosc (Class 1, LOE B-NR. 20152015 Postarrest care update new it may be advisable for rescuers to target noroxima after ROSC (Class IIB, LoE B-NR). 20152015Postarrest Care Updates is advisable for physicians to check that after THE ROSC is a Paco2 target that is suitable for the specific patient condition, and limit exposure to severe hypercapnia or hypocapnia (Class IE, LOE C-LD. New to ROSC after 20152015 postarrest care updates, we recommend that parent fluids and/or inotropes or vasoactive drugs be used to maintain systolic blood pressure over the fifth percentile for age (Class 1, LOE C-LD. New for 20152015Postarrest care updates When appropriate resources are available, continuous arterial pressure monitoring is recommended to identify and treat hypotension (Class 1, LOE C-EO). New Pediatrics for 20152015Postarrest Care UpdatesEEGs can be considered in prognostication neurologic results at the time of hospital discharge performed within the first 7 days after cardiac arrest (Class IIb, LOE C-LD) But 20152015Postarrest Care Updates should not be used as the sole criterion for prognostication in children after cardiac arrest has not established the reliability of any one variable. Physicians should consider several factors when predicting outcomes in infants and children who receive ROSC after cardiac arrest (Class I, LOE C-LD). The following recommendations for 2015 were not reviewed in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 14: Pediatric Advanced Life Support. Provide family members with the option of attending during the resuscitation of an infant or child (Class 1, LOE B) whenever possible during resuscitation of the 2010 family. Mask Not Reviewed at Airway Airway Airway (LMA) When Bag Mask Ventilation (See Bag Mask Mask Mask Below) is unsuccessful and when endotrecial intuition is not possible, LMA is acceptable when used by experienced providers to provide a patented airway and support ventilation (Class IIA, LOC). 20152010Bag-mask ventilation in prehospital setting it is advisable with ventilation and oxygen infants and children bag-mask device, Transport LOE B) 20152010 20152010Precation has not been reviewed so only the force and tidal volume required to increase the chest (Class 1, LOE C). 20152010Proical aviation did not review excessive ventilation during cardiac arrest ((Class III), LOE c) 20152010 Is not reviewed in the initial if the infant or child is intubated, ventilated at about 1 breath rate every 6 to 8 seconds (8 to 10 times per minute) without interrupting chest compression (Class 1), LOE C). 20152010Precation has not been reviewed, if any LMA is in force it may be advisable to do so (Class AIIB, LOE C) 20152010 Has not been reviewed in The Day, which involves the victim with a perfing rhythm but absent or inadequate respiration effort, Breathe 1 every 3 to 5 seconds (12 to 20 breaths per minute) using high rate for small child (Class 1, LOE C) has not been reviewed in 20152010 Two-person bag-mask ventilation to reduce air penetration into the stomach cricoid pressure in an unresponsive victim (Class IIb, LOE B). Bag-mask ventilationAvoid excessive cricoid pressure not reviewed in 20152010 so as not to obstruct trachea (Class III, LOE B). Do not increase the Cricoid pressure during Intubation 20152010 not reviewed in 20152010 If it interferes with the speed or ease of ventilation or motion or in Cribbeation (Class III), do not continue the cricoid pressure, LOE C). Unfed endotracheal tubsboth cuffs and unfed endotreclus tube infants and children (Class IIA, LOE C) Is not reviewed in 20152010Cuffed vs unfun endotrecla tubecin not reviewed certain conditions (e.g., poor lung compliance, high airway resistance, or a large glotic air leak) a cuff endotreclella tube may be better for an unfed tube, provided that attention endotreacal tube size, Size, position to be given on, and cuff inflation pressure (Class IIa, LOE B). 20152010 Not reviewed in 20152010Endotracheal tube Sizefor for children aged 1 and 2 years old, it is a cuff to use endotraxyl tube It is advisable to estimate the tube size with the following formula (Class IIa) not reviewed in 20152010Endotracheal TubeAfter Size Age 2 with internal diameter of 3.5 mm (Class IIA, LOE B) , LOE B: Cuff Endotreacial Tube ID (mm) 3.5+ (age/4). 20152010Esophageal detector device (EDD) not reviewed if capanography is not available, an esophagal detector device (EDD) may be considered to confirm endotreical tube placement in children weighing >20 kg with a perfusing rhythm (class AIIB, LOE B), but data Insufficient to recommend it for or against its use in children during cardiac arrest. 20152010 Not reviewed inTrantrache catheter oxygenation and ventilation This process is not reviewed in the 20152010CPR guidelines for newborns with proper training and cardiac arrest of the appropriate devices (Class IIb, LOE C) heart origin it is advisable to revive newborns with a primary cardiac etiology of arrest , regardless of location, according to infant guidelines, with an emphasis on chest compression (Class IIb, LOE C) 20152010 Not reviewed in TheEchocardiography when properly trained personnel are available, echocardiography may be considered to identify patients with possible treatment of arrest, especially pericardial tamponade and inadequate ventricular filling (Class IIb 20152010Intraosseous (IO) access access is rapid, effective for vascular access in children, and acceptable pathways, and it is useful as initial vascular access in cases of cardiac arrest (Class 1, LOE C), LOE C) not reviewed in 20152010. 20152010 medical dose calculation is not reviewed if the child's weight is unknown, it is advisable to use body length tape with precalculated dose (Class IA, LOE C). Calculate the patient's habit in 20152010000 dose calculation, use actual body weight for calculating the dose of the initial resuscitation drug or use a body length tape with precalculation dose (Class IIb, LOE C). 20152010CalciumCalcium Not Reviewed in Administration Document is recommended for pediatric cardiopulmonary arrest in the absence of hypocemia, calcium channel inhibitor overdose, hypermagnemia, or hyperkalemia (Class III, LOE B). During resuscitation 20152010GlucoseCheck not reviewed in blood glucose concentration and immediate treatment of hypoglycemia (Class 1, LOE C) 20152010 sodium bicarbonate has not been reviewed in administration of cardiac arrest (Class III, LOE B) in 20152010AEDsIf is not available an AED with an ATI, use an AED with standard electrode (Class IIb, LOE C). AEDEDEDAE can be used without a dose not reviewed in 20152010AEDsAn if neither manual defibrillator nor one dose is available with attenuator (Class IIb, LOE C) 20152010Bradicardiaan in continuation of airway, Not reviewed to support ventilation, oxygen, and chest compression (Class 1, LOE B) not reviewed in 20152010Breadcardian transcutaneous pacing can be life-saving if bradycardia complete heart block or sinus node disease Due to ventilation, oxygenation, chest compression, and unresponsive to drugs, especially if it is associated with congenital or acquired heart disease (, LOE C). 20152010Supraventricular TachycardiaattempT vagal stimulation not reviewed in the first, unless the patient is hemodynamically unstable or The process will unnecessarily delay chemical or electric cardioversion (Class IIa, LOE C). Verapamil, not reviewed in 20152010Supraventricular TachycardiaAn IV/IO dose, is also effective in eliminating SVT in children older than 0.1 to 0.3 mg, but should not be used in infants without specialist consultation (Class III, LOE C) as it can lead to possible myocardial depression, hypotension and cardiac arrest. 20152010Suventricular tachycardia ascidation, if possible, was not reviewed. Start with a dose of 0.5 to 1 j/kg. Increase the dose to 2 J/kg (class AIIB, LOC) when unsuccessful. Vagal maneuvers for a patient with SVT in 20152010Superventricular tachycardiaconsider Amyodaron 5 mg/kg IO/IV or procanamide 15 mg/kg IO/IV236 and adenosine and adenosine/or cardioversion for a patient; For hemodynamically stable patients, specialist counseling is strongly recommended before administration (Class IIb, LOE C). 20152010Wide - The campus (>0.09 seconds) did not review after using an initial energy dose of 0.5 to 1j/kg in TachycardiaConsider Electric Cardioversion. If that fails, increase the dosage for 2 J/kg (Class IIb, LOE C) 20152010Wide-complex (>0.09 second) review in TachycardiaElectric cardioversion is recommended using an initial energy dose of 0.5 to 1 J/kg. If that fails, increase the dosage for 2 J/kg (Class IIb, LOE C) 20152010Septic ShockEarly not reviewed in aided ventilation septic shock (Class IIb, LOE C) 20152010Septic ShockEtomidate has been shown to facilitate endotracial insus, but septic shock (Class III, not in infants and children with minimal hemodialymic effects) Do not use it regularly in pediatric patients with evidence of LOE B) not reviewed in 20152010TraumaDo is not regularly hyperventilate even in case of head injury (Class III, LOE C) Not reviewed in 20152010 20152010 TraumaIf the patient has maxillofacial trauma or if you suspect a basiller skull fracture, insert an orogestric instead of a nasogestric tube (Class IIa, LOEC). In 20152010TraumaIn, the very selective circumstances of children with heart arrest from penetrating trauma with short transport time were not reviewed, consider the regenerated thoratomy (Class IIb, LOE C) performance. 20152010Single Ventriclenates not reviewed due to elevated lung-to-systemic flow ratio before level in a prerest state I repair can benefit from a Paco2 of 50 to 60 mm HG, which can be obtained during mechanical ventilation an increase in the induced fraction of co2, or the administration of opioids with or without chemical paralysis (Class IIb, LOE B). After the not-reviewed phase in the low cardiac output state in 20152010Single Ventriclenonate I can benefit from repair systemic vasodilators such as α-adrenergic antagonists (Class IIb, LOE B). To treat that ajan fexibenz) or a one Vascular resistance, improving systemic oxygen distribution, and reducing the likelihood of cardiac arrest (Class IIa, LOE B).20152010Single Ventricle Athanatheth drugs that have not been reviewed in systemic vascular resistance (e.g., Also highly QP to reduce milrinone or nipride: Qs (Class IIa, LOE B) 20152010Single Not reviewed during cardiopulmonary arrest at Ventricle, it is advisable to consider extracorporeal oxygenation (ECMO) for patients with single ventricular anatomy, which have undergone the membrane Stage I process (Class IIa, LOE B). 20152010Single Ventriclehsoviation may improve fonton or hemi-fontan/bydirective glen (BDG) physiology (Class IIA, Leoe B) with a prearst state. Antrix pressure ventilation can improve cardiovascular production (Class IIa, LOE C) 20152010Singletric VenDurle, 20152010Singletric VenDurle, 20152010 is not reviewed in 20152010. 20152010Pulmonary Hypertension has not been reviewed, Intravenous or breathing therapy has been disrupted to reduce pulmonary hypertension, it has not been reviewed in re-establishing (Class IIa, LOE C) 20152010Pulmonary Hypertension, which administers inoisid nitric oxide (IO) or analogue to reduce pulmonary nitric oxide (iNO) or aerosolized prostasiline or analogue. Consider giving an intravenous bolus of high blood pressure prostasiline (Class IIa, LOE C) has not been reviewed in 20152010. 20152010Pulmonary established in hypertension If established early in resuscitation (Class IIa, LOE C) cannot be considered. 20152010Cocaine for coronary vasospasm in nitroglycerin (Class IIa, Low C), a benzodiazepine, and fentolamine (a α-adrenergic antagonist) (class AIIB). LOE C) 20152010Cocaine not reviewed in α-adrenergic blockers (Class III, LOE C) 20152010Cocaine review for ventricular arrhythmias, consider sodium bicarbonate (1 to 2 mEq/kg) administration (Class IIb, LOE C) in addition to standard treatment. 20152010Cocaineto not reviewed in myocardial infarction to prevent arrhythmias, consider a lidocaine bolus followed by lidocaine infusion (class AIIB, Leoe C). 20152010Triclinic antidepressant and other channels in sodium blockersdo class IA (quinidine, procenamide), class IC (flacanide, propifenone), or Class III (amyodaron and sotal) antirhythmics, which can increase heart toxicity (Class III, LOE C). 20152010Calcium channel blockers have the effectiveness variable of calcium administration (Class IIb, LOE C) 20152010Calcium channel blockers for bradycardia and hypotension not reviewed , do not consider norepinephrine or epinephrine (Class AIIB, LOE C) such as vesopressors and inotropes. 20152010Beta-Adrenergic Blockershai-dose epinephrine infusion may be effective (Class IIb, LOE C) 20152010Beta not reviewed in -Adrenergic BlockersConsider Glucagon (Class IIb, LOE C). 20152010Beta-Adrenergic BlockersConsider not reviewed in an infusion of glucose and insulin (class IIb, LOE C) not reviewed in 20152010Beta-adrenurtic blockers have insufficient data to recommend for or against the use of calcium (class AIIB, low c). 20152010Beta-Adrenergic BlockersCalcium has not been reviewed if glucagon and ctecolamin are ineffective (ClassIb IIb, LOE C) 20152010 No review inOpioidsSport is the initial treatment for severe respiratory depression from any cause of oxygen and ventilation (Class 1). 20152010Opioids Not reviewed inNaloxone reverse respiratory depression of narcotic overdose (Class 1, LOE B) 20152010Respiratory Systems Monitor not reviewed in CO2 (Petco2), especially during transportation and diagnostic procedures (Class IIa, LOE B). 20152010DopamineTitrate dopamine has not been reviewed in 20152010 when the shock treatment is unresponsive to that fluid and when systemic vascular resistance is low (ClassIb, LOE C), It is advisable to use an inodilator in a highly monitored setting for the treatment of myocardial dysfunction with increased systemic or pulmonary vascular resistance (Class IIA,). LOE B). 20152010Neurologic SystemIt is not reviewed in fair for teenagers suddenly, Saw, 20152010Nologic systemmonitor temperature for adolescents revived from VF cardiac arrest (Class IIb, LOE C) out of hospital, if not reviewed continuously, and aggressively treat fever (>38 °C) with antipyretics and cooling equipment as fever ischemic brain injury (Class IIA) 20152010Inthospital Transportmonitor, which was not reviewed in 20152010, provided to family members with the option of being present during resuscitation of an infant or child (Class 1, LOE B) during interspital transport to intuspital patients (Class IIA, LOE B) not reviewed in 20152010, whenever possible. During resuscitation 20152010Family attendance has not been reviewed if the presence of family members creates unreasonable staff stress or is considered harmful to resuscitation, So family members should be asked to leave respectfully (Class IIa, LOE C) 20152010Sudden unexplained DeathRefer does not review in families of patients that death is not a cause of death for a healthcare provider or center with expertise in arrhythmia. Tested found on (Class I, LOE C) Not Reviewed in 2015Part 13: Neonatal Resuscitation 2015 Cord Management Summary, from evidence reviewed in 2010 CoSTR and dcc's subsequent review and cord milking in preterm newborns in 2015 ILCOR systematic review, DCC For more than 30 seconds is appropriate for both term and preterm infants who do not need resuscitation at birth (Class IIa, LOE C-LD). 2015201599 New to News Management There is insufficient evidence which requires resuscitation at birth and is encouraged to recommend an approach to pregnancy to include such infants in more randomized trials. In light of limited information about the safety of rapid changes in blood volume for extremely immature infants, we suggest against regular use of cord milking for babies born in less than 29 weeks of gestation outside a research setting. Further studies are required because lowering the hematological mean blood pressure may improve, the hematological index, and intracranial hemorrhage, but thus far there is no evidence for improvement in long-term results (Class IIb, LOE C-LD). The new deliveries for 20152015 maintain normal temperature in RoomPreterm babies are particularly weak. Hypothermia is also associated with severe morbidities, such as respiratory problems, hypoglycemia, and late-onset sepsis. Because of this, the entry temperature should be recorded as a factor of results as well as a quality indicator (Class 1, LOE B-NR. For maintaining normal temperature in the new delivery room for 20152015 new suggestions are made that the temperature of newly-born nonasphyxiated infants should be maintained between 36.5°C and 37.5°C after birth through penetration and stabilization (class , I, LOE C-LD. The use of bright warmers and plastic sheets to maintain neonatal temperatures in the new delivery room for 20152015 improved with a cap, but did not eliminate the risk of hypothermia in immaturity in the delivery room. Other strategies have been introduced, including the use of room temperature, thermal mattresses and hot humidized resuscitation gases. Different combinations of these strategies may be appropriate to prevent hypothermia in infants born less than 32 weeks of gestation (Class IB, LOE B-R, B-NR, C-LD. 20152015Internation compared with plastic sheeting and bright heat to maintain neonatal temperature in distribution rooms, in addition to a thermal mattress, increased hot humid gases and room temperature plus cap plus thermal mattresses were all effective in reducing hypothermia. For all studies, hyperthermia was a concern, but the damage was not shown. Hyperthermia (over 38.0°C) potential associated risks (Class III: loss, Should be avoided due to LOE C-EO. 20152015Warming updated for hypothermic newborns to restore normal temperatures The traditional recommendation for the method of neonatals who are hypothermic after admission has been better for slow fast rewarming to avoid complications such as apnea and arrhythmia. though The current evidence is On hospital admissions inadvertently recommend preference for hypothermic newborns (less than 36°C to T degrees) faster (0.5°C/hr) or slow repiring (less than 0.5°C/hr). Either approach to reerming can be reasonable (Class IIb, LOE C-LD. Resources - Limited SettingsIn Resources - New for 20152015 In limited settings, to maintain body temperature or prevent hypothermia during infection (born up to 1 to 2 hours of life) well in newborns, it may be advisable to put them in a clean food grade plastic bag up to neck level and it may be advisable to swable them after drying after drying (Class IB, IB) LOE C-LD. Resources-Limited is the new new option for 20152015 at Settingen Andoremia which may be appropriate skin-to-skin contact or kangaroo mother care (class IIb, E-LD for LO E-LD. Cleaning the new airway for 20152015 when meconium is currently in place , if the infant born through meconium-stained amniotic fluid presents with poor muscle tone and inadequate breathing efforts, the initial stages of resuscitation should be completed under bright heat. PPV should be introduced if the infant is not breathing or the heart rate is less than 100/minute after the initial stages are completed. Regular intucation for trachea suction is not suggested in this setting, as there is insufficient evidence to continue recommending this practice (Class IIb, LOE C-LD). Updated for 20152015assment of cardiovascular rate ratessment during the period and resuscitation of preterm newborns, the use of 3-lead ECG may be appropriate for rapid and accurate measurement of the newborn's heart rate (Class IIb, LOE C-LD). 20152015 Preterm InfantsIn new to the administration of oxygen in all studies, whether used to start resuscitation of air or high oxygen (including 100%), most infants were in about 30% oxygen by the time of stabilization. Resuscitation of preterm newborns under 35 weeks of gestation is low oxygen (21% to 30%) should be started with, and oxygen concentration should be rateedated to achieve approximately the inter-determined range measured in healthy term infants after vaginal birth at sea level (Class 1, LOE B-R 20152015 is not newly recommended for oxygenation of resuscitation of preterm newborns with high oxygen (65% or more) (Class III: No benefit, LOE B-R 20152015Positive Pressure Ventilation (PPV) is new to support the regular application of there insufficient short and long-term safety and sustained data about the most appropriate period and inflationary pressures for the infected newborn (Class IIb, LOE B-R) for inflation of more than 5 seconds. New to 20152015Positive Pressure Ventilation (PPV) in 2015, the Neonatal Resuscitation ILCOR and Guidelines Task Force has reiterated its 2010 recommendation that, when administered to the PPV, Newborns, approximately 5 cm H2O PEEP are suggested (Class IIb, LOE B-R). The update to the 20152015Positive Pressure Ventilation (PPV) PPV can effectively be delivered with a flow inflating bag, self-inflating bag, or updated for T-piece resuscitation (Class IIA, LoE B-R). The use of 20152015Positive Pressure Ventilation (PPV) Respiratory Mechanics Monitor has been reported to prevent excessive pressure and tidal volume and ejected CO2 monitors can help assess that the actual gas exchange is taking place during face-mask PPV efforts. Although the use of such devices is possible, thus far their effectiveness, especially in changing critical results, has not been established (Class IIb, LOE C-LD). New for 20152015Positive Pressure Ventilation (PPV) Laryngeal Mask, which fit on laryngeal inlet, can span and receive effective ventilation in preterm newborns 34 weeks or more at gestation. Data is limited to their use in preterm infants given in less than 34 weeks of gestation or those who weigh less than 2000 grams. A laryngeal mask can be considered as an alternative to trachea intoite if face-mask ventilation effective ventilation (class AIIB, LOE B-R 20152015Positive Pressure Ventilation (PPV) is recommended during a laryngeal mask period and resuscitation of immature newborns during 34 weeks or more pregnancies when breathing tap intuition is unsuccessful or not possible (Class 1 C-EO, LOE. The update for 20152015CPAP is based on this evidence, unintended breathing preterm infants can be supported with ccap instead of regular intubation for the administration of PPV (Class AIIB, LoE B-R) with respiratory distress. The update for 20152015Chest compression is given at the lower third of the urostatum for the depth of diameter behind the intertriser of approximately one-third of the chest (class IIb, LOE C-LD. Update for 20152015Chest compression because 2 thumb technology generates high blood pressure and coronary perfusion pressure with low rescuer fatigue, 2 thumb-encircling hand technique preferred method (class IIb C-LD), LOE as suggested. Updates to 20152015Chest compression still suggested that compression and ventilation be coordinated to avoid simultaneous delivery. During rest the chest should be allowed to completely re-expand, but the thumb of the rescuer should not leave the chest. Neonatal resuscitation ILCOR and guidelines task force ventilation continues to support the use of a 3:1 ratio of compression, achieving about 120 events per minute with 90 compressions and 30 breaths to maximize ventilation at an receiving rate (Class IIa, LOE C-LD). Update 3:1 compression-to-ventilation ratio for 20152015Chest compression ratio is used for neonatal resuscitation where the compromise of gas exchange is almost always the primary cause of heart collapse, but rescues can be Using high proportions (e.g., 15:2) if arrest is considered as cardiac origin (Class IIb, LOE C-EO). Update for 20152015Chest compression Neonatal Guidelines Writing Group supports increasing oxygen concentration to 100% whenever chest compression is provided (Class IIa, LOE C-EO.new 20152015Chest compression to reduce the risks of complications associated with hyperoxia supplemental oxygen concentration should be weaned off as soon as the heart rate recovers (Class 1, LOE C-LD) 20152015Chest compression is new to current measures to determine successful progress in neonatal resuscitation Other tools such as end tidal CO2 monitoring and pulse oximetry to assess heart rate may be useful techniques to determine when spontaneous circulation returns. However, in assistonic/bradycardic newborns, we suggest against regular use of any single response device such as etco2 monitor or pulse oximeter to detect the return of spontaneous circulation as their usefulness for this purpose in newborns is not well established (Class AIIB, LEOC-LD) 20152015 Induced Therapeutic Hypothermia Resource-Limited gives new suggestions for ariaswhes that use hypothermia in resource-limited settings (inadequate equipment, Can be considered and introduced under a clearly defined protocol similar to features with capabilities for multidisciplinary follow-up (Class IIB, LOE) used in published clinical trials -B-R is new to 20152015 , in individual cases, it is advisable to consider variables such as withholding and closing haver, in individual cases, when counseling a family and creating forecasts for survival in pregnancies below 25 weeks, perceived accuracy of gestational age assignment, presence or absence of corionamionitis, and the level of care available for the place of delivery. It is also believed that decisions about the suitability of resuscitation below 25 weeks of gestation will be affected by area specific guidelines. In making this statement, a high price was placed on the lack of evidence for a generalised potential approach to changing the critical outcomes on better retroactive accuracy and locally validated consultation policies. The most useful data for antenatal counseling provides result figures for surviving infants at the beginning of childbirth, not only for those born alive or admitted to a neonatal intensive care unit (Class IIb, LOE C-LD). The new suggestion for the 20152015 guidelines for stopping and closing, in infants with an Apgar score of 0 after 10 minutes of resuscitation, if the heart rate remains undetectable, it may be advisable to stop assist ventilation; However, the decision to continue or close the resuscitation efforts must be personal. Can be a variable to be considered Whether resuscitation was considered optimal; availability of advanced neonatal care, such as therapeutic hypothermia; Specific circumstances before childbirth (for example, known times of humiliation); and wishes expressed by the family (Class IIb, LOE C-LD) have been updated for 20152015, That's the structure of educational programs to teach neonatal resuscitation: More research is available to trainers to clarify the optimal instructor training methodology, it is suggested that neonatal resuscitation instructors be trained using timely, objective-structured, and individually targeted verbal and/or written feedback (Class IIb, LOE C-EO). 20152015 Educational programs to teach new neonatal resuscitation: Providers have explored how often healthcare providers or health care students should train showed no difference in patient outcomes (LOE C-EO) but were able to show some advantages in psychomotor performance (LOE B-R) and knowledge and confidence (LOE C-LD) when focused training happened every 6 months or more. It is therefore suggested that neonatal resuscitation work training is more frequent than the current 2-year interval (Class ICO, LOE B-R, LOE C-EO, LOE C-LD). The following new recommendations for 2015 were not reviewed in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 15: Neonatal Resuscitation. 2010Prete control can be done with interventions controlling these temperatures, including all resuscitation processes, endotracical integrament, chest compression, and insertion of intravenous lines (Class AIIB, LOI C). The airway was not reviewed in 20152010 when amniotic fluid is clearing immediately after birth, Whether the bulb is with a syringe or suction catheter, can only be considered if the airways appear disrupted or if the PPV is required (class IIb, LOE C)) 20152010 oxygen requirement and the administration of oxygen is not reviewed in 20152010assment, it is recommended that oxymetry can be used when resuscitation can be estimated, When PPV is administered, when central cyanosis persists beyond the first 5 to 10 minutes of life, or when supplemental oxygen is administered (Class 1, LOE B)) the administration of oxygen in the period 20152010 has not been reviewed in 20152010, Oxygen can be administered and a former duct oxygen can be administered and titrated to achieve saturation to estimate the interquartertial range measured in infants of healthy periods after vaginal birth on the sea floor (Class I, LOE B) 20152010Nitineal breath and assisted ventilation inflation pressure should not be reviewed; Initial inflationary pressure of 20 cm H2O can be effective, but without spontaneous ventilation (class IIb,) The term may require ≥30 to 40 cm H2O in infants (Class IIb, LOE C) 20152010Nitineal breath and assisted ventilation not reviewed in summary, assisted ventilation should be distributed at a rate of 40 to 60 breaths per minute so that heart rate can be achieved or maintained immediately at 100 per minute (Class AIIB, LOE C) has not been reviewed in 20152010 8- Ventilation devices are received more frequently in strut inflationary pressures and long-inspiring time mechanical models when T-piece devices are used instead of bags, although the clinical implications of these findings are unclear (Class IIb, LOE C) has not been reviewed in 20152010, in which ventilation devices are insensitive to changes in compliance with the parastrator lungs, even if the device is being used (Class IIb Do not review, LOE C)Do not review 20152010Endotracheal tube placement in although last reviewed in 2010, detecting extracted CO2 remains the most reliable way of confirming endotreci tube placement (Class IIa), LOE B).20152010Chest not reviewed in compression rate, and Oxygen should be reassessed from time to time, and coordinated chest compression and ventilation should continue until spontaneous heart rate 60 per minute (Class IIB, LOE C) 20152010Epine epinephrine intravenous administration of 0.01 to 0.03 mg per kilo 1:10 000 epinephrine supplements can be considered. If the endotrecla administration route is attempted while intravenous access is established, higher dozing will be required at 0.05 to 0.1 mg/kg. (Class IIb, LOE C) 20152010EpinephrineGiven did not review the lack of auxiliary data for androtseyl epinephrine, As soon as intravenous access is established, it is advisable to provide medicines by intravenous passage (class AIIB, LoE C)) 20152010volt is not reviewed in detail, when blood loss is known or suspected (yellow skin, poor perfusion, weak pulse) and the baby's heart rate has not responded adequately to other regenerative measures (Class AIIB, LeoE C). 20152010Volt vistaon isotonic crystalloid solution has not been reviewed or may be useful for volume expansion in blood delivery room (Class IIb, LOE C). The recommended dose not reviewed in 20152010volt is 10 ml/kg, which may need to be repeated. When reviving premature babies, care should be taken to avoid giving up volume expanders faster, as large amounts of rapid infusions are associated with IVH (Class AIIB, LOE C). The last review of induced therapeutic hypothermia resources-abundant area-induced therapeutic hypothermia was not reviewed in 20152010; At the time it was recommended that infants born in more than 36 weeks of gestation with developing moderate to severe hypoxic-ischemic encephalopathy should be offered therapeutic hypothermia under clearly defined protocols used in published clinical trials and facilities The capabilities for multidisciplinary care and longitude follow-up (Class IIa, LOE A) have not been reviewed in 20152010 guidelines for withholding and closing, when resuscitation is not indicated, when it is almost always indicated, and in circumstances when the result remains unclear, that parental wishes should be supported (Class IIb, LOE C). Not reviewed in 20152010Briefing/DebriefingIt still suggested that briefing and debriefing techniques be used whenever possible for neonatal resuscitation (Class IIb, LOE C). The review in 2015Part 14: Education2015Basic Life Support TrainingCPR video through self-instruction - and/or computer-based modules added with hand-to-practice may be a reasonable choice for instructor-led courses (Class IIb, LOE C-LD). 20152015 Update for Basal Life Support Training can be considered as an alternative to traditional instructor with self-instruction and instructor-led training on hand of teaching leadership courses for providers. If instructor-led training is not available, self-guided training can be considered for lay providers to learn AED skills (Class IIb, LOE C-EO). 20152015 New guided methods for base life support training can be considered for health professionals AED skills learning (Class IIb, LOE C-EO.new 20152015Basic Life Support Training Can be effective in improving CPR performance during training (Class IIA, LOE A.. 20152015Basic Life Support Update for Training If feedback devices are not available, hearing guidance (e.g., metronome, music) can only be considered to improve adherence to recommendations for chest compression rate (Class IIb, LOE B-R). 20152015 Updated training for basal life support with the speed with which BLS skills decay after training, coupled with the observed improvement in skills and confidence among students who train more often, it may be advisable for BLS retraining to be completed more frequently by individuals who are likely to face cardiac arrest (Class AIIB, LOE C-LD) 20152015Advanced Life Support TrainingPrecourse Updates for Preparation, including review of appropriate content information, online/precourse testing, and practice of relevant technical skills is appropriate before participating in ALS training programs (Class IIa, LOE C-EO). The updated loss to 20152015Advanced life support training is justified for the very small risk and potential benefits of team and leadership training, the inclusion of team and leadership training as part of team and leadership training (Class IIa, LOE C-LD) Update for 20152015 Use of High Fidelity Mankins for 15Edwand Life Support Training ALS Training can be beneficial for improving skill performance at course conclusion (Class IIa, LOE B-R 20152015 Updated for ED Life Support Training Potential Educational Support Training In small, frequent retraining sessions coupled with the ability to remove employees from clinical environments for cost savings and standard refresher training from short training time, It is advisable that individuals who are likely to be victims of cardiac arrest can more often consider standing training passes in compression-only CPR for adult outdoor hospital cardiac arrest as an alternative to training in special idea communication traditional CPR (Class IIb, LOE C-LD) updated for Manikin-based retraining (Class IIa, LOE C-LD) 20152015. New idea for 20152015Special It may be advisable to use alternative instructional modalities for teaching BLS and/or ALS in a resource limited environment (Class IIb, LOE C-LD). The new special idea for 20152015 may be appropriate to primary carers and/or family members of high-risk patients (class IIb, LOE C-LD), though groups which need to be defined to help further work were not preferentially reviewed the following recommendations for target.new for 2015 in 2015. For more information, see the 2010 AHA Guidelines for CPR and ECC, Part 16: Education, Implementation and Teams. 2010Sors should be taught to start CPR for recognition of cardiac arrest if adult sufferers are unresponsive and not breathing or breathing normally (for example, Only gasping) (Class 1, LOE B) has not been reviewed in 20152010. physical and psychological concerns for rescue are justified that participants taking CPR training should be advised of the vigorous physical activity required during the skill part of the training programme (Class IIa, LOE B). Not reviewed to maximize the desire to use AED in 20152010Barriers, public access defibrillation training should continue to be encouraged to the general public (Class 1, LOE B). Not reviewed with established methods for program evaluation in 20152010Course DesignConsistent, effectiveness courses of resuscitation should be evaluated (Class 1, LOE C) not reviewed in 20152010 Training requirement reduced the use of AEDs by untrained bystanders may be beneficial and may be life-saving (Class IIa, LOE B). 20152010AED training requirement was not reviewed as minimum training has also been shown to improve performance in fake cardiac arrest, training opportunities should be provided and promoted to Le Rescuer (Class 1, LOE B). 20152010Course has not been reviewed in distribution formats It is advisable to consider alternative course scheduled formats for advanced life support courses (e.g., ACLS or friends), acceptable programmatic evaluation of the provided is conducted and learners meet the objectives of the course (Class IIa, LOE B). 20152010Checklists/Cognitive AidsChecklists or Cognitive Aids, such as Ideas for Use in AHA Algorithms Can be considered for use during actual resuscitation (class IIb, LOE C) not reviewed As a technique for learning to facilitate learning should be included in all advanced life support courses (Class 1, LOE B) (Emergency) Cardiac CareIt's 20152010 Review in Regional Systems is not appropriate that regional systems of care be treated as part of a holistic approach to improving survival from cardiac arrest (Class IIa, LOE C). 20152010Barriers has not been reviewed. , it may be advisable for CPR training to address the possibility of panic and encourage learners to consider how they will overcome it (class IIb LOE C) 20152010Barriers do not review to viewer CPRD despite the low risk of infection, it is advisable to teach rescuers about the use of barrier devices that CPR should not be delayed for their use (Class IIa , LOE C). Post-course assessment written exam not reviewed in 20152010 should not be used specifically to assess learner's ability after an advanced life support course (Class 1) LOE B) 20152010 Post-Review not-course AssessmentEnd-of-Evaluation can be useful in helping learners maintain skills (Class IIb, LOE C). The 20152010 training interval has not been reviewed should be evaluated during 2-year certification with reinforcements provided as per the skill performance requirement (Class 1, LOE B). Review not in 2015Part 15: First Aid 2015First Support training in education and first aid may be useful for reducing morbidity and mortality from injury and illness (Class IIa, LOE C-LD. 20152015 Assistance For First Education New We recommend that first aid education be universally available (Class 1, LOE C-EO). New sick or injured personality status for 20152015 if the area is unsafe for first aid provider, if possible go to a safe place (Class 1, LOE C-EO). Update for 20152015 Sick or injured personality condition If a person is unresponsive and breathes normally, it may be advisable to keep him in the lateral side-recovery condition (Class IIb, LOE C-LD). 20152015 Position If a person is injured and the nature of injury shows a neck, back, hip, or pelvic injury, the person should not be rolled on his side and instead should be left in the situation in which they were found, to avoid possible further injury (Class 1, LOE C-LD). 20152015 The person's airway is blocked due to leaving the person in the situation found to receive sick or injured personality status, or if the area is unsafe, transfer the person required to open the airways and reach a safe place (Class 1, LOE C-EO). Update for ShockIf 20152015Position If a person shows evidence of shock and is normally responsive and inhaled, the person Status (Class IA, LoE C-LD) is advisable to be updated. There is no evidence of trauma or injury (for example, simple fainting, nontraumatic bleeding, sepsis, shock from dehydration), lifting legs from the condition of the spine to about 6 to 12 inches (about 30 degrees to 60 degrees) is an option that can be considered while awaiting the arrival of EMS (Class IIb, LOE C-LD). ShockDo for 20152015Position update if movement or situation pain (Class III : Damage, LOE C-EO. 20152015Oxygen use in first aid for first aid providers for first aid providers with specific training used in new first aid for oxygen decomment disease (Class IIa, LOE C-LD. First Aid Providers with specific training in oxygen use The administration of complementary oxygen may be appropriate to individuals with advanced cancer known with dyspnea and hypoxia (Class IIb, LOE B-R. 20152015 New first for oxygen use in AidAlthgen Although no evidence was identified to support the use of oxygen, it may be advisable to provide oxygen to individuals who breathe spontaneously while waiting for advanced medical care (Class IIb, LOE C-EO). 20152015Red to Medical Emergencies: Asthmay first aid providers are advisable to get acquainted with available inhaled bronchodilator devices and assist with the administration of prescribed bronchodilators when a person is having difficulty breathing with asthma (Class IIa, LOE B-R) 20152015 Updated for Medical Emergencies: StrokeThe use of a stroke evaluation system by first aid providers is recommended (Class 1 B-NR, LOE. 20152015 New to Medical Emergencies: Chest PainAspirin Several major studies have found a significant decrease in mortality due to myocardial infection and therefore recommended for individuals with chest pain due to suspected myocardial infection (Class IIa, LOE B-R). 20152015Medical Emergency Update: Chest Pain PAIN FOR ANYONE WITH OTHER SYMPTOMS OF HEART ATTACK IMMEDIATELY EMS, RATHER THAN TRYING TO TRANSPORT THE PERSON TO A HEALTH FACILITY YOURSELF (CLASS I, LOE C-EO) 20152015Medical New to Emergencies: Chest PainEMS waiting to arrive , first aid provider can encourage a person with chest pain to take aspirin if symptoms and symptoms suggest that the person is having a heart attack and the person has no allergies or contraindications to aspirin, such as recent bleeding (Class IIa, LOE B-NR)20152015 Updated for Medical Emergencies: Chest pains hurts a person in the chest which does not suggest that the root cause is in the cause. The heart is, or if the first aid provider is unsure or uncomfortable with the administration of aspirin, then the first aid provider should not encourage the person to take aspirin (Class III): damage, LOE C-EO. 20152015 New to Medical Emergencies: Anaphylaxis of Epinephrine The dosage is 0.3 mg More than 30 kg for adults and children, 0.15 mg for children 15 to 30 kg, or as prescribed by the person's physician. First aid providers should immediately call 9-1-1 when caring for a person with suspected anaphylaxis or severe allergic reaction (Class 1, LOE C-EO). 20152015 New to Emergency Medical Condition: A person with anaphylaxis does not respond to the initial dose, and the arrival of advanced care will be more than 5 to 10 minutes, a repeat dose can be considered (Class IIb Update for 20152015Mical emergencies , LOE C-LD : Hypoglycemiaif person is unconscious, Displays seizures, or is unable to follow simple orders or swallow safely, first aid provider should call immediately for EMS (Class 1, LOE C-EO) 20152015 New to Medical Emergencies: HypoglycemiaIf a person with diabetes displays low blood sugar reports or signs of low blood sugar or mild hypoglycemia and in following and swallowing simple commands Enabled, oral glucose must be given to attempt to solve hypoglycemia. Glucose tablets, if available, should be used to reverse hypoglycemia in a person who is able to take these orally (Class 1, LOE B-R). 20152015 New to Medical Emergencies: Hypoglycemia It is advisable to use these dietary sugars as an alternative to glucose tablets (when not available) mild symptoms hypotacemia (Class IIa, LOE B-R 20152015 New to Medical Emergencies: HypoglycemiaF Support Providers Should Wait at least 10 to 15 minutes before calling EMS and re-treating diabetes with mild symptomatic hypoglycemia with additional oral sugars (Class 1 , LOE B-R. 20152015 New to Medical Emergencies: Hypoglycemia A person's condition worsens or does not improve during that time, first aid provider EMS (Class 1, LOE C-EO) should call. 20152015 New to Medical Emergencies: In the absence of dehydration shock, confusion or inability to swallow, it is advisable for first aid providers to assist or encourage persons with painstaking dehydration to perform CE drinks (Class IIa) or to sally rehydrate, LOE B-R) 20152015 New to Medical Emergencies: Dehydration if these alternative drinks are not available For toxic eye injury it can be beneficial to the eyes exposed to toxic chemicals immediately and with abundant amounts of tap water for at least 15 minutes or advanced medical care (Class IIa) for the new 20152015Medical emergencies, can be used to use potable water (Class IIb, LOE B-R). Update to Medical Emergencies, LOE C-LD.20152015: Toxic eye injury if tap water is not available, normal brine or another commercially available eye irrigation solution may be appropriate (Class IIb, LOE C-LD). 20152015Medical New to Emergencies: Of individuals with chemical eye injuries Chemical eye injuries that help providers should contact their local poison control center or, take if a poison control center is not available from a medical provider or 9-1-1 (Class 1, LOE C-EO). New to 20152015Trauma emergencies: Control of bleeding there is no evidence to support the use of pressure points or the height of injury to control external bleeding. The use of pressure points or extreme height for injury to control external bleeding is not indicated (Class III: No Benefit, LOE C-EO) 20152015Trauma Update for Emergencies: Control of bleeding The standard method for first aid providers is to apply direct pressure to the bleeding site to control open bleeding until it stops. Control open bleeding by applying direct pressure on the bleeding site (Class 1, LoE B-NR). Update for 20152015Trauma emergencies: Control of bleeding lokkal cold therapy, such as an instant cold pack, can be useful for these types of injuries to the extreme or scalp (Class IIa, LOE C-LD). New to 20152015Trauma emergencies: Control of bleeding should be used with caution in children due to the risk of hypothermia in this population (Class 1, LOE C-EO. New to 20152015Trauma emergencies: Control of bleeding because the rate of complications is low and the rate of hemostasis is high, first aid providers may consider the use of a tourniquet when standard first aid hemorrhage controls severe external organ bleeding (Class IIb , LOE does not control C-LD). 20152015Trauma Update for Emergencies: Control tourniquet of bleeding can be considered for initial care when a first aid provider is unable to use standard first aid bleeding control, such as during a mass casualty event, with a person who has multisystem trauma, in an unsafe environment, or with a wound that cannot be reached (class IIb C-EO, LOE. New to 20152015Trauma emergencies: Control of bleaching Although the maximum time review for tourniquet use was not done by the 2015 ILCOR systematic review, it is recommended that the first aid provider take note when a tourniquet is first applied and communicates this information with EMES providers. It is advisable for first aid providers to train in proper application of tourniquets, both manufactured and instantaneous (Class IIA, LOE C-EO) 20152015Trauma New to emergencies: Control of bleeding can be considered by first aid providers when standard bleeding control (with or without fog or direct pressure without dressing clothes) is not effective for serious or life threatening C-LD, LOE. Update for 20152015Trauma emergencies: control training of the application of bleeding of haemostatic dressing (Class 1, LOE C-EO.20152015Trauma Update for Emergencies: Open Chest Wound We recommend against the application of an occlusive dressing or device by first aid providers for individuals with an open chest wound (Class III: Damage, LOE C-EO) 20152015Trauma New to the situation: Open chest wound in first aid condition, it is advisable An open chest wound exposed to ambient air without a dressing or seal (Class IIa, LOE C-EO). New to 20152015Trauma Emergencies: ConcussionAny person with a head injury that has resulted in changes in the level of consciousness, the progressive development of signs or symptoms should be assessed as soon as described above, or otherwise a cause of concern (Class 1, LOE C-EO. 20152015Trauma new to emergencies) : Any mechanical machinery must be deferred by these individuals for continuing to participate in the sport after driving, cycling, or head injury until they are assessed by a healthcare provider and approved to participate in those activities (Class 1, LOE C-EO). 20152015Trauma New to emergencies : Spinal motion restrictions : Growing body of evidence showing more actual damage and no good evidence show obvious benefits, we recommend against regular application of cervical collar by first aid providers (Class III: Damage, LOE C-LD. 20152015Trauma Update for Emergencies: Spinal Motion Restrictions If a first aid provider is suspected of a spinal cord injury , he or that person should still remain as much as possible and await the arrival of EMS providers (Class 1, LOE C-EO). 20152015Musculoskeal new to trauma normal, first aid providers should not move or try to straighten an injured extreme (Class III): damage, LOE C-EO. 20152015Musculoskeal Update for Trauma In such situations, providers must protect the injured person, including ways to limit pain, reduce the chance for further injury, and provides safe and quick transport (Class 1, LOE C-EO) facility. 20152015Musculoskeletal update for trauma if an injured is extreme blue or extremely pale, Activate EMS immediately (Class 1, LOE C-EO) 20152015Burnool Thermal as soon as possible and burns with at least 10 minutes (cool or cold potable water for class class I, updated cool or cold water for LOE B-NR.20152015Burnsif is not available , a clean cold or cold, but not cold, can be useful as an alternative to cooling cede thermal burns (Class IIb, LOE B-NR. 20152015BurnsCare should be taken to monitor for new hypothermia when cooling large burns (Class 1, LOE C-EO) 20152015Burnes after cooling of a burn, a sterile , it may be advisable to loosely cover water with dry dressing (class AIIB, LOE C-LD). Updated for 20152015Burnin General, it may be advisable to avoid natural therapies such as honey or potato peel dressing (class IIb, LOE C-LD). For 20152015BurnsHowever new, remote or jungle settings where commercially topical antibiotics are not available, it may be advisable to consider applying honey as an antimicrobial agent (Class IIb, LOE C-LD. 20152015 Connected withBurnsBurns (1) or new to broken skin; (2) difficulty breathing; (3) face, face, hand, or genitalia; (4) a large surface area, such as trunk or hands-on legs; or (5) Other cause of concern should be evaluated by the healthcare provider (Class 1), LOE C-EO. New to the 20152015Dental injury that does not allow for immediate replanting, it may be beneficial to temporarily store an avulsed tooth in a variety of solutions shown to prolong the viability of dental cells (Class IIa, LOE C-LD). 20152015 Dental Injury Update for 20152015Dental Injury for 20152015Dental Injury For 20152015Dental injury are available for 20152015Dental injury, injured persons may be justified in storing an avulsed tooth in saliva (not in the mouth) pending replantation (class IIB, LOE C-LD. 20152015Dental is new to injury, replanting it (Class 1 , LOE is required to seek assists rapidly with C-EO). The new following recommendations for 2015 were not reviewed in 2015. For more information, see the 2010 AHA and American Red Cross Guidelines for First Aid, Part 17: First Aid. 2010OxygenThere is insufficient evidence to recommend regular use of supplemental oxygen by a first aid provider for victims complaining of chest discomfort or shortness of breath (Class IIb, LOE C) 20152010AnaphylaxisFirst assistance providers should also not be reviewed to know how to administer auto injectors if the victim is unable to do so , provided that the drug is prescribed by a physician and state law allows it (class IIb, LOE B)) 20152010TourniquetsSpecifically designed tourniquets that are instantaneous, but tourniquets should only be used with proper training (Class IIA, Low B). Has not been reviewed in 20.15.2010. This tissue can produce ischemia (Class III, LOE B). 20152010Spine stabilization was not reviewed as there are serious consequences if secondary injury occurs, maintain the speed restriction of the spine by stabilizing the head manually so as to reduce the speed of the head, neck and spine (Class IIb, LOE C). 20152010 A barrier in Sprains and strains, such as a thin towel, between the cold container and the skin (class IIb, LOE C) 20152010Hypothermia is not reviewed in hypothermia victim is far from certain health care, start active rewarming (Class IIa, LOE B) although the effectiveness of active rewarming has not been evaluated. 20152010 An object in the mouth of the SeizuresPlacing victim may cause dental damage or aspiration (Class IIa, LOE c) 20152010Wounds and frictions in the parable wounds and frictions are not well heated or room temperature with a large amount of potable water or without soap unless there is any foreign thing in the wound (Class 1, LOE A) has not been reviewed in 20152010 and the abrasive wounds are better cured with less infection If they are covered with antibiotic ointment or cream and a clean oxyclassive dressing (Class IIa, LOE) 20152010Burn covered charred blisters with a sterile dressing reviewed in blisters, but blisters leave intact as it improves treatment and improves pain (Class IIa, LOE B). 20152010Electric Ljais has not been reviewed, while Power (Class III, LOE C) is on, not reviewed in 20152010. , LOE B) 20152010Snakebites do not apply suction as first aid for snakebite (Class III, LOE c) 20152010Snakebites have not been reviewed, which is a pressure stabilization strip with pressure between 40 and 70 mm HG in the upper end and between 55 and 70 mm HG which is in low extreme around the entire length of the bite extreme (class IIa 20152010Jailfish disable the confirmed toxin load in Stingto and prevent further envenoation, jellyfish stings should be liberally washed with vinegar (4% to 6% acetic acid solution) for at least 30 seconds (Class IIa, LOE B) as soon as possible. 20152010000 fish sting not reviewed for the treatment of pain, after removing or deactivating nematocyst, jellyfish stings should be treated with hot water immersion if possible (Class IIaIa, LOE B). 20152010Jyfish stingus has not been reviewed, if hot water is not available, dry hot packs or, as a second choice, dry cold packs may be helpful in reducing pain, but these are not as effective as hot water (Class IIb, LOE B). Has not been reviewed in 20152010, aluminum sulfate or meat tenderizer, commercially available aerosol products, fresh water washing was not reviewed in 20152010 6 StingsTopical application, and papain, an enzyme derived from papaya used as a local drug, are also less effective in relieving pain (Class IIb, LOE B). Recoverylifish stingspressor immobilization bandages are not recommended for the treatment of jellyfish stings not reviewed in 20152010 as animal studies show that pressure with an implantation bandage causes further release from the already removed nemato, LOE C). 20152010Frostbite is not reviewed if there is any chance that it may freeze again or if you have a medical facility (Class III, LOE C) 20152010FrostbiteSevere or review in deep frost should be remodeled within 24 hours of no injury and it is best completed by immersing the part of frost in warm (37°C to 40°C or approximately body temperature) water 20 to 30 minutes (sq. IIb, LOE C) 20152010FrostbiteChemical warmers are not reviewed because they should not be kept directly at the temperature that burns (Class III, LOE C) can reach. 20152010 20152010 20152010Amical burnsin case not immediately reviewed when exposed to alkali on skin or eye The affected area with abundant amounts of water (Class 1, LOE B) treated with milk or WaterDo in 20152010 does not administer anything from the mouth to any poison ingestion unless advised to do so by a poison control center or emergency medical personnel because it can be harmful (Class III, LOE C) 20152010Activated charcoldo is not reviewed unless you have a poison control center or emergency medical personnel (Class IIb, LOE C). 20152010 Review in IpacDo administering ipecac syrup for ingestion of toxins (Class III, LOE B). Not reviewed in 2015Footnotes

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