Cpr manual 2014

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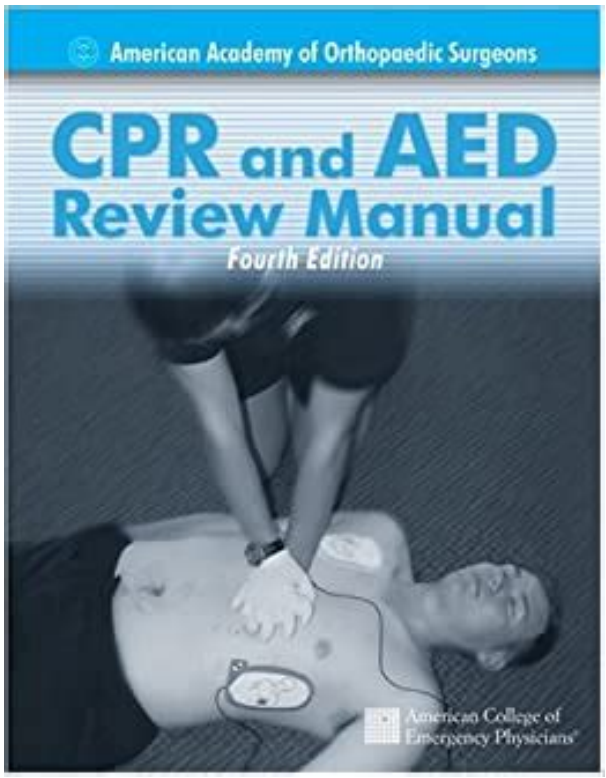
Book Descriptions:

Cpr manual 2014



Please enable it to take advantage of the complete set of features!Get the latest public health information from CDC. Get the latest research from NIH. Find NCBI SARSCoV2 literature, sequence, and clinical content.Our aim was to elucidate the incidence of CPRrelated injuries by manual chest compressions compared to mechanical chest compressions with the LUCAS device mechanical CPR in nonsurvivors after outofhospital cardiac arrest.No injury was deemed fatal by the pathologist. Please enable it to take advantage of the complete set of features!Get the latest public health information from CDC. Get the latest research from NIH. Find NCBI SARSCoV2 literature, sequence, and clinical content.The randomized CIRC trialThe randomized CIRC trialAfter EMS providers initiated manual compressions patients were randomized to receive either iACPR or MCPR. Patient followup was until all patients were discharged alive or died. The primary outcome, survival to hospital discharge, was analyzed adjusting for covariates, age, witnessed arrest, initial cardiac rhythm, enrollment site and interim analyses. CPR quality and protocol adherence were monitored CPR fraction electronically throughout the trial.The adjusted odds ratio of survival to hospital discharge for iACPR compared to MCPR, was 1.06 95% CI 0.831.37, meeting the criteria for equivalence. The 20 min CPR fraction was 80.4% for iACPR and 80.2% for MCPR. The 13digit and 10digit formats both work. Please try again.Please try again.Please try again. Used GoodThank you for supporting Goodwill Industries of Ventura and Santa Barbara County in our mission to enhance the dignity and quality of life of individuals and families through education, skills training, and the power of employment.Then you can start reading Kindle books on your smartphone, tablet, or computer no Kindle device required. In order to navigate out of this carousel please use your heading shortcut key to navigate to the next or previous heading.http://3ringmetals.com/files/flightdek-d180-manual.xml

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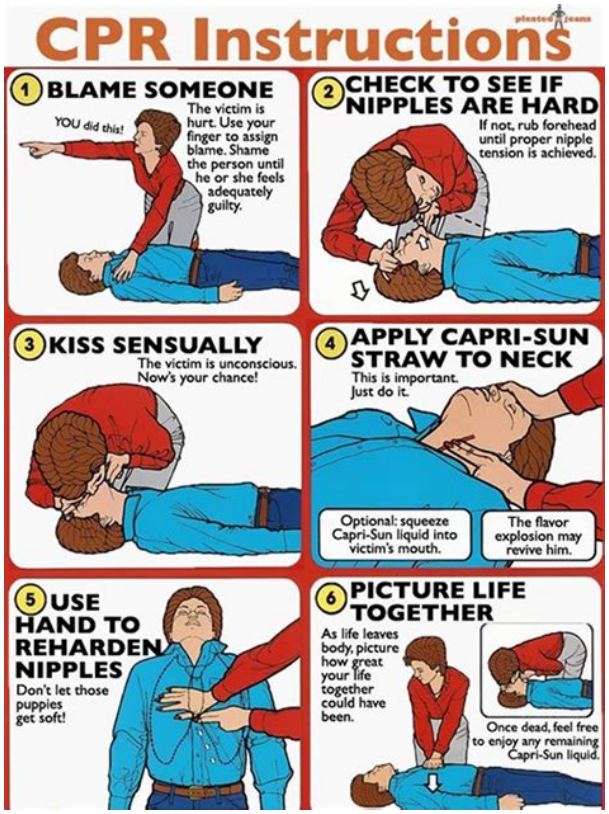
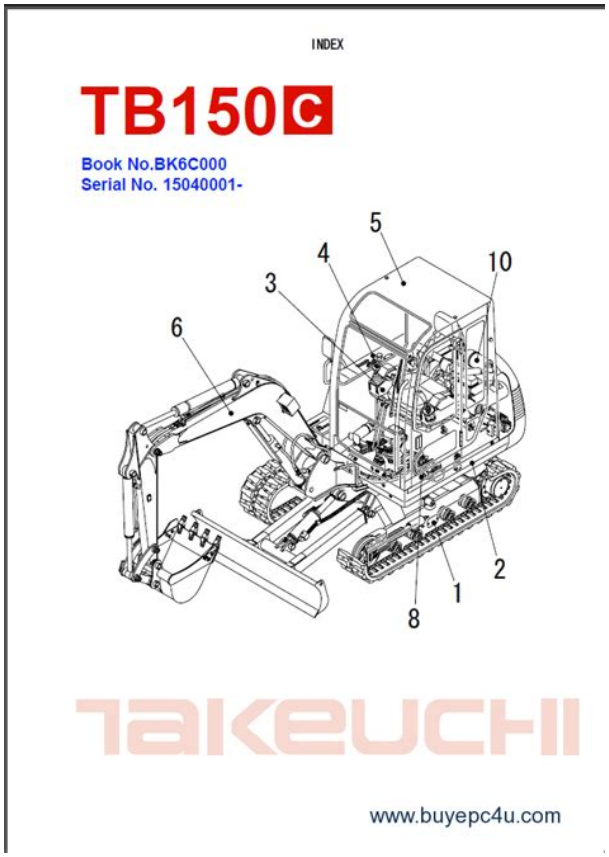


National product contact points Under the CPR, EU countries have to inform on their rules and regulations for construction products through national contact points 131 KB. CPR FAQ Manufacturers, market surveillance authorities and other interested parties can consult the CPR FAQ. If you log out, you will be required to enter your username and password the next time you visit.The device used in this study, the LUCAS2 Physio Control is a batterypowered device designed to deliver quality compressions — 4 to 5 cm in depth at a rate of 100 per minute in continuous mode, with a ratio of 30 compressions with pauses to allow for two ventilations. Ambulance staff were trained to use the device with a clinical algorithm developed by the clinical educator staff within each of the four services. Patients received LUCAS2 mechanical chest compression or manual chest compressions according to the first trial vehicle to arrive on scene, Dr Perkins noted. Ambulance dispatch staff and those collecting data on the primary outcome were masked to treatment allocation. Masking of the ambulance staff who delivered the interventions and reported initial response to treatment was not possible. In total, 985 60% patients in the LUCAS2 group received mechanical chest compression and 11 patients less than 1% in the control group received mechanical compression, they report. Seven clinical adverse events were reported in the mechanical CPR group three patients with chest bruising, two with chest lacerations, and two with blood in the mouth. Fifteen device incidents occurred during operational use. No adverse or serious adverse events were reported in the manual group. Mechanical CPR requires the same commitment to training and attention to deployment practices.Dr Perkins and other coauthors report receiving grants from the NIHR HTA program during the study. The other authors declare no competing interests.

Dr Ong is principal investigator of an industryfunded study involving a mechanical CPR device; has received grants from Laerdal Medical, grants and personal fees from Zoll Medical, and nonfinancial support from Bard Medical and Zoll Medical; and has a patent method of predicting patient survival licensed to Zoll Medical and a patent system and method of determining a risk score for triage pending. Dr Anantharaman is principal investigator in an industryfunded study on use of a mechanical CPR device in the outofhospital situation; has received nonfinancial support from PhysioControl; and is a member of the medical advisory board of Falck Foundation. Abstract, Comment Abstract 10. Presented November 16, 2014. Most recently, she was news editor for

thekidney.org and also wrote for theheart.org; both of these Web sites have been acquired by WebMD. Prior to that, she spent 10 years covering neurology topics for a Canadian newspaper for physicians.To comment please Login.You must declare any conflicts of interest related to your comments and responses. Please see our Commenting Guide for further information. We reserve the right to remove posts at our sole discretion. You must declare any conflicts of interest related to your comments and responses. Please see our Commenting Guide for further information. We reserve the right to remove posts at our sole discretion. You will receive email when new content is published. They were adapted from the 2015 ERC guidelines, and tailored to clinical practice in the UK. They are renewed every 5 years, and the next set of guidelines will be released in late 2020. Accreditation is valid for 5 years from March 2015. More information on accreditation can be viewed at These Resuscitation Guidelines have been developed as documented in the Resuscitation Council UK Guidelines Development Process Manual 2014. Accreditation is valid for five years from March 2015.



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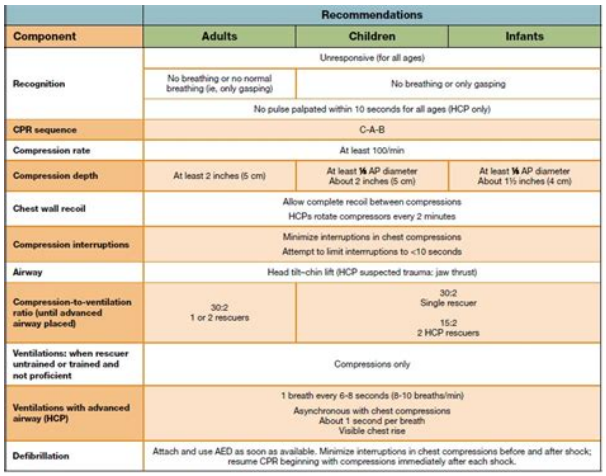
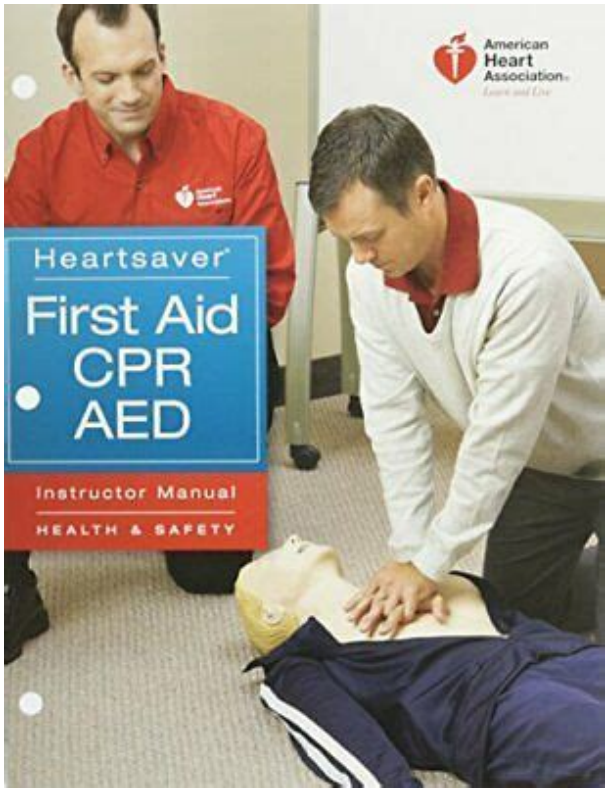
Users of NICEaccredited guidance can therefore have high confidence in the quality of the information provided. The NICE Accreditation was based on the procedures and methodology used in the development of the 2010 Resuscitation Guidelines, as documented in the Resuscitation Council UK Guidelines Development Process Manual 2012. For further information please see our Privacy Policy. Recommendations are made through conversations between people, their families, and health and care professionals and recorded on a form. For further information please see our Privacy Policy. Mechanical chest compressions and simultaneous defibrillation vs conventional cardiopulmonary resuscitation in outofhospital cardiac arrest The LINC randomized trial.Mechanical chest compression devices have been developed that improve organ perfusion vs manual compressions in experimental studies, but there is little evidence of their clinical effectiveness and safety compared to manual compressions. Thus, these investigators from Sweden, the Netherlands,

and the United Kingdom conducted a randomized trial to compare whether CPR using a mechanical chest compression device LUCAS resulted in superior 4hour survival in patients with outofhospital cardiac arrest as compared to standard CPR with manual chest compressions. All patients in whom CPR was performed by six emergency medical systems in three countries between January 2008 to August 2012 were entered. Exclusion criteria were traumatic cardiac arrest, known pregnancy, age Informed consent was done after successful resuscitation and four patients withdrew consent, leaving 2589 study subjects. The first defibrillation was delivered 1.5 minutes later and there were more defibrillations in the mechanical compression group, but otherwise the groups were well matched. The primary outcome of survival to 4 hours was not different between the two groups both 24%. Nor was there a significant difference in any of the secondary outcomes.



	Recommendations		
Component	**Adults**	**Children**	**Infants**
Recognition	Unresponsive (for all ages)		
	No breathing or no normal breathing (ie, only gasping)	No breathing or only gasping	
	No pulse palpated within 10 seconds for all ages (HCP only)		
CPR sequence	C-A-B		
Compression rate	At least 100/min		
Compression depth	At least 2 inches (5 cm)	At least ⅓ AP diameter About 2 inches (5 cm)	At least ⅓ AP diameter About 1½ inches (4 cm)
Chest wall recoil	Allow complete recoil between compressions HCPs rotate compressors every 2 minutes		
Compression interruptions	Minimize interruptions in chest compressions Attempt to limit interruptions to <10 seconds		
Airway	Head tilt–chin lift (HCP suspected trauma: jaw thrust)		
Compression-to-ventilation ratio (until advanced airway placed)	30:2 1 or 2 rescuers	30:2 Single rescuer 15:2 2 HCP rescuers	
Ventilations: when rescuer untrained or trained and not proficient	Compressions only		
Ventilations with advanced airway (HCP)	1 breath every 6-8 seconds (8-10 breaths/min) Asynchronous with chest compressions About 1 second per breath Visible chest rise		
Defibrillation	Attach and use AED as soon as available. Minimize interruptions in chest compressions before and after shock; resume CPR beginning with compressions immediately after each shock.		

There were 23 devicerelated adverse events among 1282 deployments of the device and eight of these required discontinuing use of the device. There were seven serious adverse events with the device vs three with manual compressions; these included pneumothorax and flail chest. The authors concluded that there was no significant difference in 4hour post outofhospital cardiac arrest survival between those in whom a mechanical chest compression device was used vs manual compressions during CPR. Also, they produce consistent excellent chest compressions with a compression fraction of 0.84 vs 0.78 for manual. So, this might allow highly skilled but smaller people with less arm strength to be EMTs. One of my colleagues was urging us to buy these devices because he didnt want a small relatively weak resident doing chest compressions on him when he collapses during rounds he is a large man. In addition, these devices seem safe; serious complications from the device were unusual and not statistically different from manual compressions. Also, device malfunction was rare There are several plausible reasons. First, the device groups CPR protocol was different to try to take advantage of the devices strengths. Chest compressions were done in 3minute intervals rather than 2 minutes with manual compressions to take advantage of the lack of fatigue with the device. Second, the first defibrillation shock was given without stopping compressions in the device group, again to take advantage of the automatic chest compressions without human contact with the victim during the shocks. Third, since compressions were not stopped for the first shock, it was given as quickly as possible without efforts to determine the patients rhythm. Fourth, the first shock was delivered 1.5 minutes later in the device group due to the time needed to employ the device.



Finally, since this study was done in the field by EMS personal, it is likely that all the EMTs were excellent at chest compressions, which may not be the case in less selective environments. Which of these potential explanations for the failure to show better outcomes with the device is the most important is difficult to determine. However, I believe the device has promise and is at least as good as manual compressions. Further work to capitalize on the advantages of mechanical chest compressions seems warranted. If your CPR results arent what you want them to be, perhaps looking into deploying a mechanical chest compression device makes sense. Please tell us why. In the latter case, pleaseHow are we doing. Europe PMC is part of the ELIXIR infrastructureEurope PMC is a service of theIt includes content provided to the. For example, studies in the 1980s and 1990s suggested significant benefit from early bystander CPR and large observational studies in Japan have shown that compression only CPR may be favourable in adult cardiac arrest patients. These studies have begun trends towards widespread public health promotion of hands only CPR In fact, historically, results have been quite mixed with a landmark edition of JAMA in 2006 having two conflicting studies. One study that was stopped early showed a trend towards worsening outcomes with mechanical CPR and another study in the same issue suggested a potential benefit from a similar intervention. In the ASPIRE study there was trending towards harm from using the Zoll AutoPulse and the research was subsequently terminated after an interim analysis. However, in the ASPIRE study there was a significant delay in applying the mechanical device in several patients in which time no active CPR was given. Although the study was stopped early, later analysis suggested that this may have been due to protocol errors at one particular site rather than a truly harmful effect from mechanical CPR.

Despite a lack of a current evidence base for its use it may be useful in selected cases especially where prolonged CPR is required. For example, it may be helpful to use Mechanical CPR in patients with refractory VF, Thrombolysis for Massive PE, Toxicological Arrest, Hypothermic Arrest and in arrested patients who are being transferred onto rescue VA ECMO. However, in a clinical setting further studies are needed to confirm or refute the benefit of these devices in real life practice. The wheels can come off the wagon when too many rescuers jump in all at once, so put people to work in a way that enhances, and does not overwhelm the Pit Crew CPR process. You can always get in line to be next on chest compressions. It’s a happy coincidence that we shock on a 2minute cycle and we

also change out the person out on chest compressions every 2 minutes. By combining these two activities you can minimize unnecessary delays in CPR and maintain your perishock pauses to 5 seconds or less. I'm wondering though if you have a LUCAS device, why wait to put it on. Why not apply it early And the benefits we see is that it doesn't tire out, doesn't take up extra space. In the first place, the LINC trial showed that manual CPR and mechanical chest compressions with the LUCAS device are equivalent. So it's important to start this conversation with the understanding that we aren't depriving patients of anything proven to be superior. I am aware of one system near Minneapolis that may eventually be able to provide this information. Some of my thoughts come from reading the following article. Lay person CPR is being taught without ventilations now and although I don't agree we should be doing this as healthcare professionals, the arguments they use for why this is good enough makes sense to me.

Every time you push on the chest during compressions, you cause the patient to exhale and when you release, negative thoracic pressure causes air to move into the lungs, effectively ventilating the patient with approximately 100 small tidal volume ventilations a minute. I guess the argument could be made that you are just moving the air in the deadspace of the lungs back and forth. This is partially why I would not advocate for no ventilations by healthcare professionals, along with needing to reverse hypoxia in patients who have been in cardiac arrest for an extended period of time. I guess my question is why we don't ventilate less frequently, like every 10 seconds instead. I wonder this for the following reasons. Firstly, every time we ventilate, we increase intrathoracic pressure and decrease venous return to the heart, affecting the cardiac output and perfusion pressures of our compressions. For this reason it would make sense to me to decrease the number of times we ventilate, so we decrease the number of times we affect the efficacy of our compressions. Secondly, in the cardiac arrest state, the amount of oxygen needed by the body is decreased, because the metabolism is significantly slowed, so the amount of oxygen needed by the patient is decreased, so then the amount of oxygen delivered per ventilation should last longer making it plausible to ventilate less often and still adequately oxygenate the patient, especially considering we are giving them a much higher concentration of oxygen than is contained in atmospheric air. I like to think of this in terms of the severe asthma or COPD patient who is being ventilated. From what I've been told, you ventilate them every 810 seconds in order to give them enough time to exhale, so we don't cause stacked breaths and barotrauma.

If this rate of ventilation is adequate to keep them acceptably oxygenated and I realize this will be patient dependent and not necessarily acceptable for all patients why would it not be acceptable to keep a cardiac arrest patient adequately oxygenated. All of this, has also made me think of the 302 ratio. I did some quick math in my head and I came up with 30 compressions taking approximately 18 seconds in order to make 100 compressions in a minute. I realize these are the guidelines and we need to follow them, but it makes me think more research is needed. Lastly, I have heard it advocated that once an ET tube is in place we should be ventilating on the downstroke of compressions. I believe this is in order to have minimal intrathoracic pressure during the upstroke or filling phase, again so as not to affect venous return to the heart. Anyway, these are my thoughts and I was wondering whether my thoughts make sense to anyone else or just me and what other people's thoughts are. I only have the data from the above article to support my thoughts and I'm just trying to think critically and incorporate what I have heard from people who are much smarter than I am. If anyone has data to support or refute my thoughts, I would love to see it. After that point there isn't much consensus. Not to mention, I believe that waveform capnography is very helpful to both monitor the quality of CPR and to help identify ROSC. Keep in mind, usually the downtime has

been a good 10 minutes by the time EMS arrives at the scene collapse to recognition, recognition to 911 call, call processing interval, dispatch, reaction time, wheelsup to wheelsdown at the curbside of the emergency, curbside of the emergency to patient's side. There is more than one way to skin a cat. However, I am 100% positive that getting a department to perform consistently from crew to crew, shift to shift, day to day, week to week, is the hard part.

Otherwise you'll have different crews and different paramedics handling it dozens of different ways and that is a nonsystem. That should take no more than 3 seconds. I also would not recommend trying to time artificial ventilations with the downstroke of a chest compression. I did have a couple comments on application of the LUCAS and the time it takes to put this devise on REAL people. We have used the LUCAS both the first generation and now the LUCAS 2 for years now in my system. We have found through practical trial that 24 min of manual CPR is done before the LUCAS is put on for a couple of reasons. 1 it reduces the time to start immediate compressions when it is procedure to start manual compressions instead of delayed CPR while crew break out the compression devise. 2 It gives the crew time to get the LUCAS set up, turn on, back plate out and listening for coordinated instructions to make the application as seamless as possible all while manual compressions are being done take in consideration our cardiac arrests get at least a 3 person engine crew and a 2 person MICU First place the back plate under the pt.This usally takes less than 5 seconds to do if coordinated well. Second when manual CPR is still being done you can clip one side of the LUCAS devise into the back plate the wing of the LUCAS allows you to do this without getting in the way of the person doing CPR. Third with the LUCAS already turn on coordinate with the person doing manual CPR to stop and simply flip the other side of the LUCAS over to clip in the other side and press start. The person doing CPR can help guide the other wing into the back plate making this easier. This just takes maybe 12 sec.We download all of our cardiac arrests from our LP15 and can see excactly how long our pauses are during this time. Do you use CODESTAT.

If so, can you demonstrate with data that the application time is less than 10 seconds last manual compression to first mechanical compression I will get the info from my medical director and pass it on. Even if it's a case series 10 consecutive cases or something along those lines. We definitely need research in this area! July 6, 2018 58 Year Old Male, Workout Worry July 5, 2018 71 Year Old Male Chest Discomfort Discussion May 5, 2018 You recognize, many people are hunting around for this information, you could aid them greatly. 20200720 103910 Rate tachycardic, around 120150. P waves are hard to see, but appear to be present in V1, and possibly covered by T waves.Join the Resuscitation group on Facebook! Join the Advanced Cardiac Life Support group on Facebook! Join the EMS Safety Culture group on Facebook! Join the EKG Club group on Facebook. Resuscitation, 85 6, 741748. Resuscitation. 2014 Jun;856741748. In Resuscitation. 2014; Vol. 85, No. 6. pp. 741748. After EMS providers initiated manual compressions patients were randomizedto receive either iACPR or MCPR. Patient followup was until all patients were discharged alive or died. The primary outcome, survival to hospital discharge, was analyzed adjusting for covariates, age, witnessed arrest, initial cardiac rhythm, enrollment site and interim analyses. CPR quality and protocol adherence were monitored CPR fraction electronically throughout the trial.Results Of 4753 randomized patients, 522 11.0% met post enrollment exclusion criteria.After EMS providers initiated manual compressions patients were randomizedto receive either iACPR or MCPR. Patient followup was until all patients were discharged alive or died. The primary outcome, survival to hospital discharge, was analyzed adjusting for covariates, age, witnessed arrest, initial cardiac rhythm, enrollment site and interim analyses. CPR quality and protocol adherence were monitored CPR fraction electronically throughout the trial.

Results Of 4753 randomized patients, 522 11.0% met post enrollment exclusion criteria. The 20 min CPR fraction was 80.4% for iACPR and 80.2% for MCPR.Conclusion Compared to highquality MCPR, iACPR resulted in statistically equivalent survival to hospital discharge. AB Objective To compare

integrated automated load distributing band CPR iACPR with highquality manual CPR MCPR to determine equivalence, superiority, or inferiority in survival to hospital discharge.Methods Between March 5, 2009 and January 11, 2011 a randomized, unblinded, controlled group sequential trial of adult outofhospital cardiac arrests of presumed cardiac origin was conducted at three US and two European sites. After EMS providers initiated manual compressions patients were randomizedto receive either iACPR or MCPR. Patient followup was until all patients were discharged alive or died. The primary outcome, survival to hospital discharge, was analyzed adjusting for covariates, age, witnessed arrest, initial cardiac rhythm, enrollment site and interim analyses. CPR quality and protocol adherence were monitored CPR fraction electronically throughout the trial.Results Of 4753 randomized patients, 522 11.0% met post enrollment exclusion criteria. The 20 min CPR fraction was 80.4% for iACPR and 80.2% for MCPR.Conclusion Compared to highquality MCPR, iACPR resulted in statistically equivalent survival to hospital discharge. Mechanical versus manual chest compression for outofhospital cardiac arrest PARAMEDIC a pragmatic, cluster randomised controlled trial.The randomized CIRC trial.Mechanical chest compression for out of hospital cardiac arrest Systematic review and metaanalysis.Check out her NEJM perspective article. Theme Gem by Webulous Themes. CPR, especially if administered immediately after cardiac arrest, can double or triple a person’s chance of survival. About 90 percent of people who experience an outofhospital cardiac arrest die.

The 2017 Heart Disease and Stroke Statistics state that among the 356,000 OHCA that occurred, 45.7% or 46% received bystander CPR.Dallas, TX 75231 Customer Service 1800AHAUSA1 18002428721 Contact Us Hours Monday Friday 7AM 9PM CST Saturday 9AM 5PM CST Closed on Sundays Unauthorized use prohibited. One of the events described 3 fully charged nickelmetal hydride batteries indicating battery failure during use on a cardiac arrest patient August 2013. Another event February 2013 concerning a nickelmetal hydride battery occurred because the battery did not have daily operational checks or battery swaps, and the battery was not fully charged. The third event August 2012 is ongoing and only limited information is available, but it relates to an unexpected stop in AutoPulse compressions. All of these studies compared AutoPulse CPR with manual CPR in people with outofhospital cardiac arrest. None of the studies was conducted in the UK. Inclusion and exclusion were determined after patient enrolment to avoid treatment delay. Of those randomised, 522 met postenrolment exclusion criteria and for 12 people there was no survival to hospital discharge data available. As such, 2099 of those who had AutoPulse CPR and 2132 of those who had manual CPR were included in the final analysis. The primary outcome was survival to hospital discharge. The adjusted odds ratio of survival to hospital discharge met the criteria for equivalence for comparison between the AutoPulse CPR group and the manual CPR group. No statistically significant differences in people with injuries were found between the 2 groups, although some injuries were more prevalent in 1 group than the other. Inclusion and exclusion were determined after patient enrolment. Of those randomised, 554 from the AutoPulse CPR group and 517 from the manual CPR group met the inclusion criteria and were eligible for analysis.All sites initially chose option 1.

One site site C changed its resuscitation intervention from option 1 to option 2 half way through the study. In option 2 there was a delay in the application of AutoPulse CPR. Logistic regression found site C to be statistically significantly associated with worsening of survival to hospital discharge. Following the first planned interim monitoring, the study enrolment was terminated for safety in every site. Also, because the protocol allowed sites to change the execution during the trial, the potential harm from using the device seemed to be associated with site C following a change in the protocol at that site. Compared with manual CPR, AutoPulse CPR resulted in a higher rate of survival to hospital admission, but a tendency for a lower rate of survival to hospital discharge. However, these associations did not reach statistical significance. These people were matched to 93 controls who had manual CPR without the AutoPulse of a similar duration. It was not stated whether

the study included only nontraumatic cardiac arrests.The study population comprised adults who had nontraumatic cardiac arrest and were admitted to the emergency department, or whose cardiac arrest happened in the emergency department. There were 459 people in the manual CPR phase, and 552 in the AutoPulse CPR phase.There were 284 eligible people from the AutoPulse CPR phase and 499 from the manual CPR phase.The cause of death for the people of this study was not restricted to cardiac arrest of known cause. It is presumed that the risk of trauma associated with CPR would be similar in people having CPR regardless of the cause of cardiac arrest. The Pinto et al. 2006 study is therefore included in this briefing table 13. There was a significantly higher frequency of sternal fractures p Four of the studies were prospective and 1 was retrospective. All the people had manual CPR followed by AutoPulse CPR.