2015 CPR guideline Update

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CPR guideline has been updated in every 5 years since 2000. Oct 15th 2015, the latest CPR guidelines was published. The key updates as below; (1) New chain of survival is suggested separately in out-of hospital cardiac arrest (OHCA) and in-hospital cardiac arrest (IHCA). Chain of survival in OHCA consists of 5 steps without change since 2010: (1) Recognition and activation of the emergency response system [R], (2) Immediate high-quality CPR [C], (3) Rapid defibrillation [P], (4) Basic and advanced emergency medical service (5) ACLS and post-cardiac arrest care [A]. New Chain of survival in IHCA is: (1) Surveillance and prevention, (2) [R], (3) [C], (4) [D], (5) [A]. In IHCA chain of survival, the prevention of IHCA by surveillance of high-risk patients is newly suggested in 1st step. This surveillance system can be achieved by the rapid response team (RRT) or medical emergency team (MET). At 2015 CPR guideline, the code-blue team is not the "CPR" only team but the integrated team providing "CPR" as well as "RRT" for high risk patients. In BLS part, the high-quality CPR is still the most important key component for the successful CPR. The compression rate and depth are changed from "at least 100/min, at least 5cm" to "100~120/min, at least 5cm, but not exceed 6cm (5~6cm)". For the lay-rescuer not-educated about CPR previously, the compression-only CPR without ventilation is recommended. In BLS in OHCA situation, the team approaches as in IHCA are recommended if the multiple rescuers are available in the field. For witnessed adult OHCA when an AED is immediately available, it is reasonable that the AED be used as soon as possible. In ACLS part, the high-quality CPR is also the most important component for survival, the 30:2 compression-ventilation ratio are recommended

without advanced airway. If the advanced airway is available, it may be reasonable for the provider to deliver 1 breath every 6 seconds (10 breaths/min) while continuous chest compressions are being performed. After the return of spontaneous circulation (ROSC), the integrated post-cardiac arrest care bundle should be provided. In 2015 new guideline, the post-cardiac arrest PCI and therapeutic temperature management (TTM) are recommended as follows; (1) emergency CAG should be performed for OHCA patients with suspected STEMI, and also reasonably performed for suspected Non-STEMI (without ST elevation). (2) All comatose adult patients with ROSC after cardiac arrest should have TTM, with a target temperature between 32-36℃ for at least 24 hours (at 2010, 32-34℃, 12-24 hours). And actively preventing fever after TTM is reasonable. The 2015 AHA CPR and ECC guideline is not a comprehensive version, because not all issues were reviewed. Therefore, the latest recommendations in CPR should be referenced from the 2015 CPR guidelines and also the 2010's. Such an integrated version is available online at ECCguildelines.heart.org.