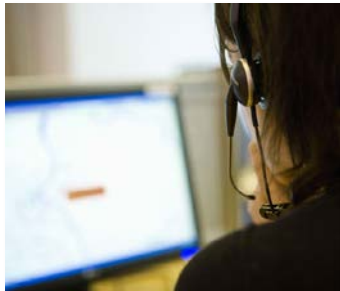




Telecommunicator-CPR (T-CPR) Enhancing the Chain of Survival



OVERVIEW

Annually, over 350,000 people fall victim to sudden cardiac arrest (unexpected loss of heart function, breathing, and consciousness - commonly the result of an electrical disturbance in the heart) outside of a hospital environment.¹ Unfortunately, only about 1 in 10 victims survive this dramatic event.¹

Lay rescuer cardiopulmonary resuscitation (CPR) is a critical link in the chain of survival while emergency vehicles are in transit to the scene, less than half those experiencing an out-of-hospital cardiac arrest (OHCA) receive lay rescuer CPR

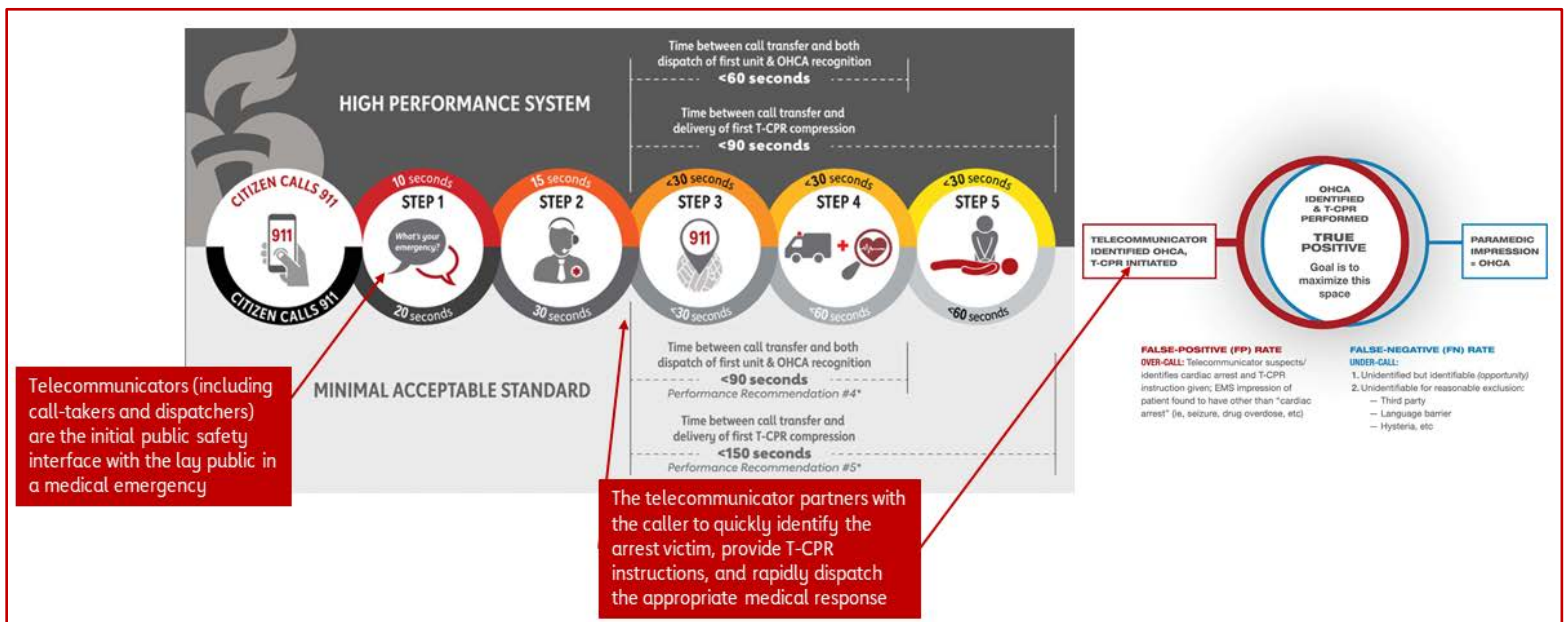
before emergency professionals arrive. Moreover, the provision of lay rescuer CPR may vary within a given community based on neighborhood, especially among minorities, which highlights high-yield opportunities to improve lay rescuer CPR and save lives.¹

OHCA CHAIN OF SURVIVAL

Successful resuscitation of cardiac arrest victims requires the time-sensitive, expert care described by each of the links in the Chain of Survival.¹



T-CPR: WHAT IS IT?



T-CPR INCREASES ACCESS TO LAY RESCUER CPR & IMPROVES OHCA SURVIVAL RATES

- Only about 40% of those experiencing an out-of-hospital cardiac arrest (OHCA) receive lay rescuer CPR before the arrival of professional emergency rescuers²
- T-CPR offers a safe, cost-efficient, and effective approach to substantially increase community lay rescuer CPR¹
- Near-universal use of 9-1-1 (or equivalent emergency numbers outside the United States) ensures activation of an emergency communication center for virtually all treated cardiac arrest events¹
- CARES data demonstrated that 73% of OHCA events received lay rescuer CPR after T-CPR instruction.³
- Early lay rescuer CPR is associated, on average, with an approximately two-fold increase in the chances of survival after OHCA, with or without T-CPR instruction^{4,5}
- CARES data demonstrated equitable delivery of T-CPR instruction regardless of race or socioeconomic factors but did find reduced lay rescuer CPR (after T-CPR instruction) based on older age and lower median household income.³
- Even in communities where T-CPR is a standard practice, directed quality improvement efforts involving T-CPR & community education may increase lay rescuer CPR^{3,6-8}

THE AHA ADVOCATES¹

- Ensure T-CPR training is a compulsory requirement for all 911 telecommunicators who provide dispatch for emergency medical conditions.
- Ensure T-CPR training shall follow evidence-based, nationally recognized guidelines for high quality T-CPR which incorporates recognition protocols for OHCA and continuous education.
- Secure monies to provide for the effective implementation of T-CPR training and ongoing quality improvement requirements.

1. Kurz MC, Bobrow BJ, Buckingham J, Cabanas JG, Eisenberg M, Fromm P, Panczyk MJ, Rea T, Seaman K, Vaillancourt C and Committee ObotAHAAC. Telecommunicator Cardiopulmonary Resuscitation: A Policy Statement From the American Heart Association. *Circulation*. 2020;141.

2. The CARES Group. CARES Annual Report 2020. 2021:1-52.

3. Amen A, Karabon P, Bartram C, Irwin K, Dunne R, Wolff M, Daya MR, Vellano K, McNally B, Jacobsen RC, Swor R and Cares Surveillance G. Disparity in Receipt and Utilization of Telecommunicator CPR Instruction. *Prehosp Emerg Care*. 2020;24:544-549.

4. Hasselqvist-Ax I, Riva G, Herlitz J, Rosenqvist M, Hollenberg J, Nordberg P, Ringh M, Jonsson M, Axelsson C, Lindqvist J, Karlsson T and Svensson L. Early cardiopulmonary resuscitation in out-of-hospital cardiac arrest. *N Engl J Med*. 2015;372:2307-15.

5. Ro YS, Shin SD, Lee YJ, Lee SC, Song KJ, Ryoo HW, Ong MEH, McNally B, Bobrow B, Tanaka H, Myklebust H and Birkenes TS. Effect of Dispatcher-Assisted Cardiopulmonary Resuscitation Program and Location of Out-of-Hospital Cardiac Arrest on Survival and Neurologic Outcome. *Ann Emerg Med*. 2017;69:52-61 e1.

6. Bobrow BJ, Spaite DW, Vadeboncoeur TF, Hu C, Mullins T, Tormala W, Dameff C, Gallagher J, Smith G and Panczyk M. Implementation of a Regional Telephone Cardiopulmonary Resuscitation Program and Outcomes After Out-of-Hospital Cardiac Arrest. *JAMA Cardiol*. 2016;1:294-302.

7. Huebinger R, Jarvis J, Schulz K, Persse D, Chan HK, Miramontes D, Vithalani V, Troutman G, Greenberg R, Al-Araji R, Villa N, Panczyk M, Wang H and Bobrow B. Community Variations in Out-of-Hospital Cardiac Arrest Care and Outcomes in Texas. *Prehospital Emergency Care*. 2021:1-11.

8. Kronick SL, Kurz MC, Lin S, Edelson DP, Berg RA, Billi JE, Cabanas JG, Cone DC, Diercks DB, Foster JJ, Meeks RA, Travers AH and Welsford M. Part 4: Systems of Care and Continuous Quality Improvement: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*. 2015;132:S397-413.