Among ACLS certified healthcare providers, is there a difference in

## OpenEvidence



Expanded question: Among Advanced Cardiovascular Life Support certified healthcare providers... ~

Among Advanced Cardiovascular Life Support (ACLS) certified healthcare providers, there is evidence suggesting differences in resuscitation outcomes based on the mode of certification training.

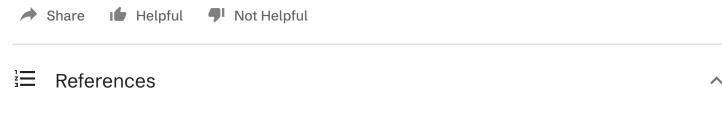
A study by Perkins et al. compared a blended approach to ACLS training (e-learning supplemented with a 1-day course) to conventional instructor-led training (2-day course). The study found that the blended approach led to a slightly lower pass rate for cardiac arrest simulation tests compared to the conventional method (74.5% vs. 80.2%). [1] However, knowledge and skill assessments were similar between the two groups, and the final pass rate after remedial teaching was comparable (94.2% vs. 96.7%). [1]

Another study by Thorne et al. evaluated the outcomes of an e-learning advanced life support course (e-ALS) compared to a conventional 2-day ALS course (c-ALS). The e-ALS course demonstrated equivalence to traditional face-to-face learning in equipping candidates with ALS skills, with similar overall pass rates (96.6% for both). The e-ALS course also showed higher pre-course and post-course MCQ scores and a slightly higher first attempt pass rate for the cardiac arrest simulation test. [2]

The American Heart Association (AHA) guidelines emphasize the importance of instructional design in resuscitation training, including the use of e-learning and blended learning approaches. The AHA supports the use of various educational strategies to improve resuscitation outcomes, acknowledging that both in-person and online training can be effective if well-designed.<sup>[3-4]</sup>

In summary, while there are slight differences in initial pass rates between in-person and online/blended ACLS training, both methods can achieve similar overall competency in

resuscitation skills. The choice of training method may depend on individual learning preferences, logistical considerations, and cost-effectiveness.



1. <u>Improving the Efficiency of Advanced Life Support Training: A Randomized, Controlled Trial.</u>

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Perkins GD, Kimani PK, Bullock I, et al.

Annals of Internal Medicine. 2012;157(1):19-28. doi:10.7326/0003-4819-157-1-201207030-00005.

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2.	E-Learning in Advanced Life Supporta	<u>ın Evaluation b</u>	<u>y the</u>	<u>Resuscitation</u>	<u>Council</u>
	<u>(UK).</u>				

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Thorne CJ, Lockey AS, Bullock I, et al.

Resuscitation. 2015;90:79-84. doi:10.1016/j.resuscitation.2015.02.026.

3. <u>Part 1: Executive Summary: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care.</u>



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Merchant RM, Topjian AA, Panchal AR, et al.

Circulation. 2020;142(16\_suppl\_2):S337-S357. doi:10.1161/CIR.000000000000918.

- ☆ Leading Journal ①
- 4. Resuscitation Education Science: Educational Strategies to Improve Outcomes From Cardiac Arrest: A Scientific Statement From the American Heart Association.

Cheng A, Nadkarni VM, Mancini MB, et al.

Circulation. 2018;138(6):e82-e122. doi:10.1161/CIR.000000000000583.

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Are there differences in resuscitation outcomes between different patient demographics?

What are the most common side effects of medications used during resuscitation?

How does the setting of the resuscitation impact outcomes?