Make the Case for **Real-Time Feedback**

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helping save lives

Over **350,000** out-of-hospital cardiac arrests occur annually in the US[1]

Only about 12% survive[1]

200,000 adult patients suffer cardiac arrests in US hospitals annually

HOSPITAL

20% Less than 20% survive to discharge[6]

There are many factors that contribute to survival from cardiac arrest, but none as powerful as receiving high-quality CPR[3]

Here's 5 impactful facts to help you make the case for real-time feedback during CPR

1 Quality compressions - the key to defibrillation success

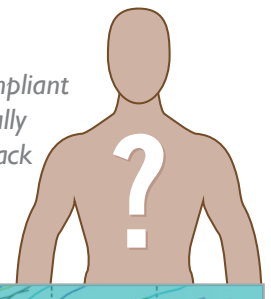
Evidence shows that maintaining quality compressions improves defibrillation success[10]*, and quality compressions are best achieved through real-time performance feedback*[6,7]

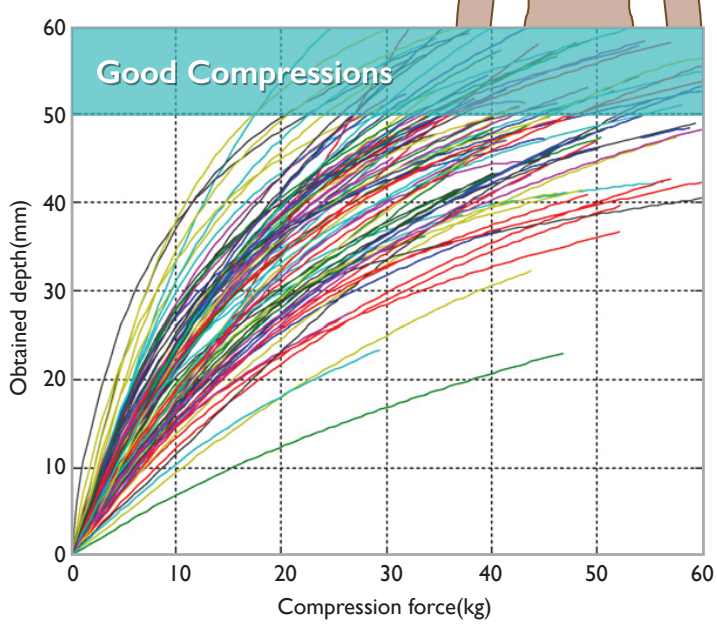
COMPRESSIONS

Depth[4]	Per Min[4]	Recoil[4]	Fraction[4]
2”-2.4”	100-120	100%	≥ 80%

2 Force factor – patient chest stiffness variance

Force required for Guidelines-compliant compressions can vary dramatically between patients. Real-time feedback can help ensure correct depth is reached with each compression.



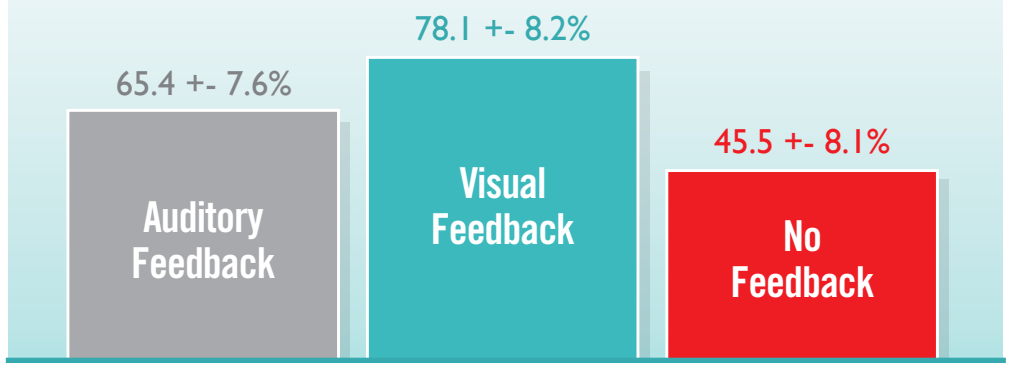


This study shows that the force required to reach 2" on a patient ranged from approximately 30kg to 60+kg

3 2015 AHA Guidelines Recommendations

“The evidence does not demonstrate a benefit with the use of mechanical piston devices for chest compressions versus manual chest compressions in patients with cardiac arrest. Manual chest compressions remain the standard of care for the treatment of cardiac arrest.”[4]

4 Visual Feedback Impact



Correct Compressions (depth, rate, and release)

A 2011 study showed that visual feedback led to a greater percent of correct compressions compared to auditory feedback and no feedback.[9]

5 Real-Time Feedback Study Results: with CPRmeter vs. No Feedback

	2010 Study[6]		2013 Study[7]	
	Correct Rate	Inadequate Release	Correct Depth	Correct Compression
With Feedback	94.6%	0.16%	85%	71%
No Feedback	62.4%	4.4%	43%	26%

When it comes to CPR, quality counts.

To learn more about ensuring quality CPR with real-time feedback, visit Laerdal.com/CPRmeter2

Sources:

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3) Peter A Meaney, MD., et al., “CPR Quality: Improving Cardiac Resuscitation Outcomes both Inside and Outside the Hospital: A Consensus Statement from the American Heart Association,” Circulation, June 25, 2013, Page 2

4) Highlights of the 2015 American Heart Association Guidelines Update for CPR and ECC, 2015. American Heart Association

5) Tomlinson AE, Nysaether J, Kramer-Johansen J, Steen PA, Dorph E. Compression forcedepth relationship during out-of-hospital cardiopulmonary resuscitation. Resuscitation. 2007; 72: 364-370

6) Skorning, M., Beckers, S.K., Brokmann, J.C., et al. (2010), Resuscitation; New Visual Feedback Device Improves Performance of Chest Compressions by Professionals in Simulated Cardiac Arrest”

7) Buleon, J. Parienti, J-J, Halbout, L., et. al.(2013) AJEM; Improvement in chest compression quality using feedback device (CPRmeter):a simulation randomized crossover study

8) Girotra S, Nallamothu BK, Spertus JA, Li Y, Krumholz HM, Chan PS. Trends in survival after in-hospital cardiac arrest. N Engl J Med. 2012 Nov 15;367(20):1912–1920. Merchant RM, Yang L, Becker LB, et al. Incidence of treated cardiac arrest in hospitalized patients in the United States. Crit Care Med. 2011 Nov;39(11):2401–2406.

9) Cason, C.L., Trowbridge, C., Baxley, S.M., & Ricard, M.D. (2011), BMC Nursing; A Counterbalanced Cross-Over Study of the Effects of Visual, Auditory and No Feedback on Performance Measures in a Simulated Cardiopulmonary Resuscitation.

10) AHA Consensus Statement, 2013, American Heart Association