



ThinkAskLearn
Health Professional Education

Cardiac Arrest - Are we deluding ourselves?

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Death of Adonis – Reubans 1614

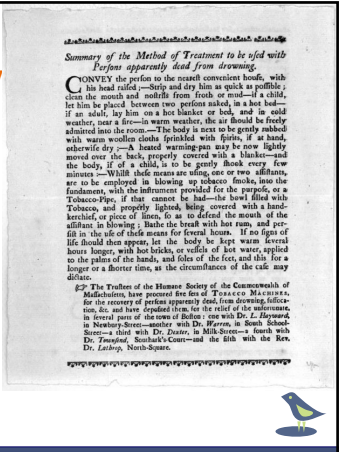


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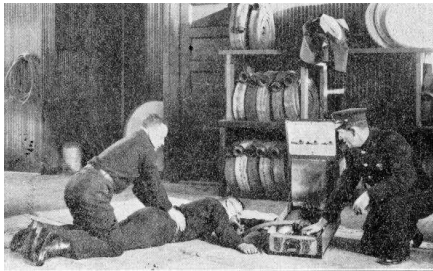
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Humane Society
of the
Commonwealth
of
Massachusetts
1786



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Early Days of Resuscitation - Schafer's
method



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Silvester technique 1966

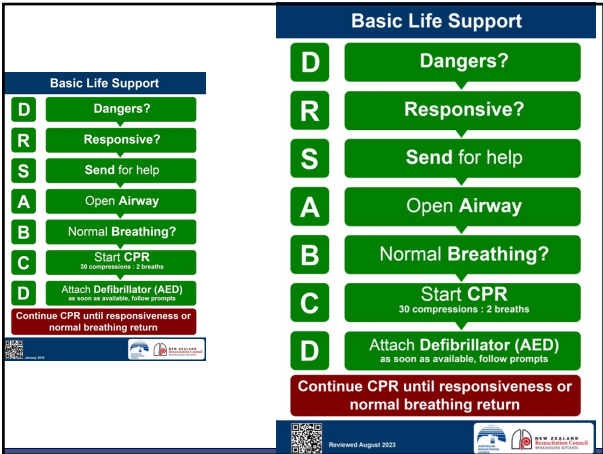


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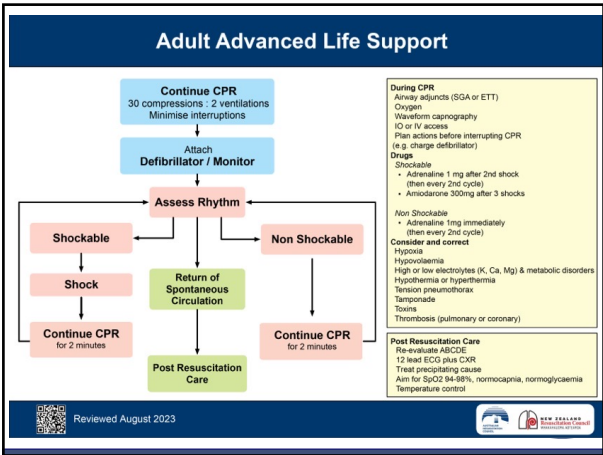
Safar et al 1959



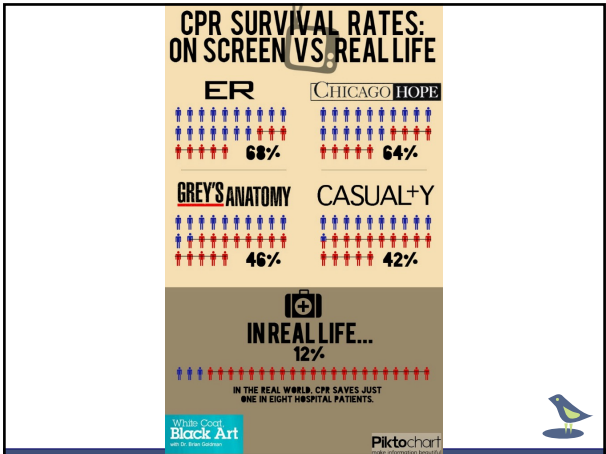
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CARDIAC ARREST SURVIVAL IS RARE WITHOUT PREHOSPITAL RETURN OF SPONTANEOUS CIRCULATION

David A. Wampler, PhD, LP, Lindsey Collett, EMT-P, Craig A. Manifold, DO, Christopher Velasquez, EMT-P, Jason T. McMullan, MD

PREHOSPITAL EMERGENCY CARE OCTOBER/DECEMBER 2012 VOLUME 16 / NUMBER 4

- 2,483 cardiac arrest from data registry
- 6.6% survival rate
- 36% achieved field ROSC (n=894)
- 17.2% with field ROSC survived (n=154 of 894)
- 0.69% with non field ROSC survived (n=11 of 1589)

White Coat Black Art

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The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

A Randomized Trial of Epinephrine in Out-of-Hospital Cardiac Arrest

G.D. Perkins, C. Ji, C.D. Deakin, T. Quinn, J.P. Nolan, C. Scopin, S. Regan, J. Long, A. Slowther, H. Pocock, J.J.M. Black, F. Moore, R.T. Fothergill, N. Rees, L. O'Shea, M. Docherty, I. Gunson, K. Han, K. Charlton, J. Finn, S. Petrou, N. Stallard, S. Gates, and R. Lall, for the PARAMEDIC2 Collaborators*


- Published on July 18, 2018, at NEJM.org.



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What did they do?

- Double blind randomised controlled trial
- 8014 patients that had Out of Hospital Cardiac Arrest (OHCA)
- 4015 got adrenaline, 3999 patients got saline
- Primary outcome rate of survival at 30 days
- Secondary outcome – rate of survival to hospital discharge with favourable neurological outcome (Score 3 or less)



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Score	Definition
0	No symptoms
1	No significant disability. Able to carry out all usual activities, despite some symptoms
2	Slight disability. Able to look after own affairs without assistance, but unable to carry out all previous activities
3	Moderate disability. Requires some help, but able to walk unassisted
4	Moderately severe disability. Unable to attend to own bodily needs without assistance, and unable to walk unassisted
5	Severe disability. Requires constant nursing care and attention, bedridden, incontinent
6	Dead



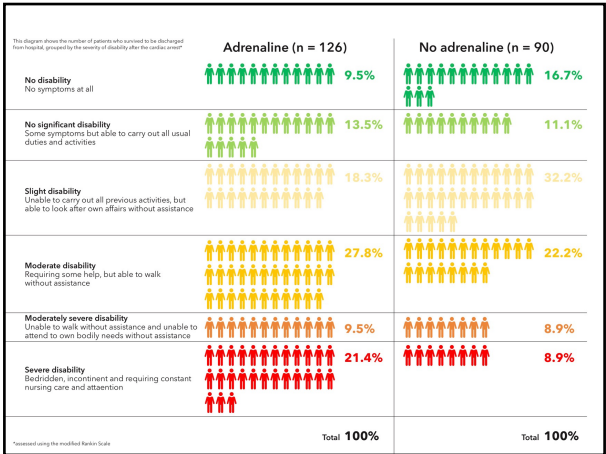
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The results

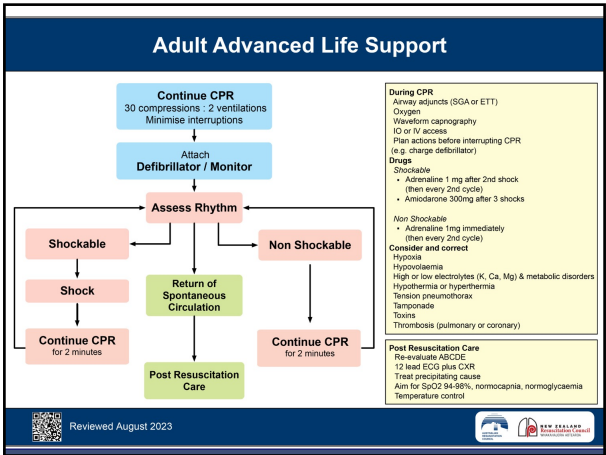
- Alive at 30 days
 - 130 from 4012 pts (3.2%)
 - 94 from 3999 pts (2.4%) (p=0.02)
- No difference at discharge with favourable neurological outcome
 - Severe neurological outcome worse in survivors with adrenaline
 - 31% adrenaline vs 17.8% with Placebo



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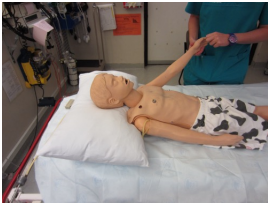
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Basic Life Support

D - Danger

R - Response?

S - Send for Help


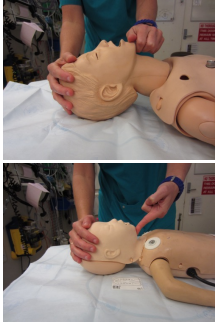


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Basic Life Support


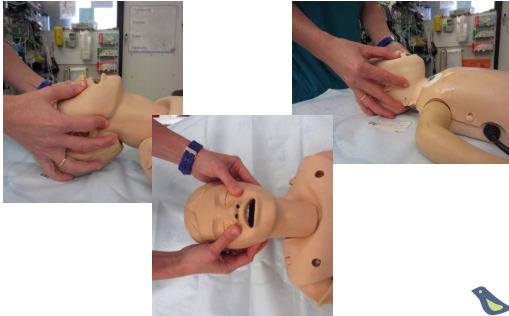
S - Send for Help

A - Open Airway



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Airway – Jaw Thrust




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Basic Life Support
Look, Listen Feel

A - Open Airway

↓

B - Normal Breathing



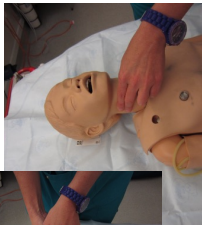

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Basic Life Support - Circulation

B - Normal Breathing

↓

C – Start CPR
30 compressions – 2 breaths

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Pulse Check and Circulation

- Pulse palpation for 10 s cannot give a reliable measurement of the presence or absence of an effective circulation.
- Palpation of the pulse cannot be the sole determinant of the need for chest compressions
- Start chest compressions if:
 - No responsiveness or normal breathing
 - No pulse
 - Slow pulse

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“Don’t be afraid to push too hard”

- At least 1/3 of the chest
- Centre of chest lower half
- 100 -120 compressions/min***



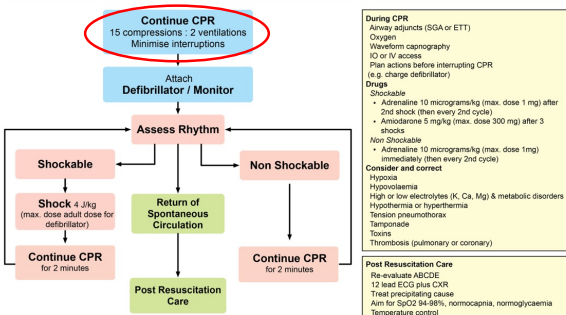
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Compressions – Hand placement older child



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Paediatric Advanced Life Support



Reviewed August 2023



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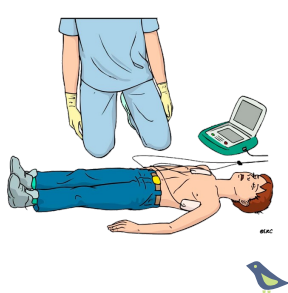
Basic Life Support - Circulation

C – Start CPR

30 compressions – 2 breaths


D – Attach defibrillator

As soon as available



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Questions???



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In Summary

- Learnt systematic approach to BLS
- Focus on evidence based approach
- Review Airway opening manoeuvres



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