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ThinkAskLearn
Health Professional Education

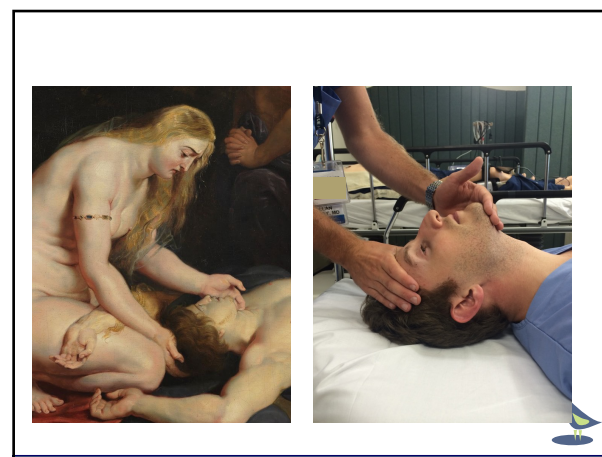
Cardiac Arrest - Are we deluding ourselves?

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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

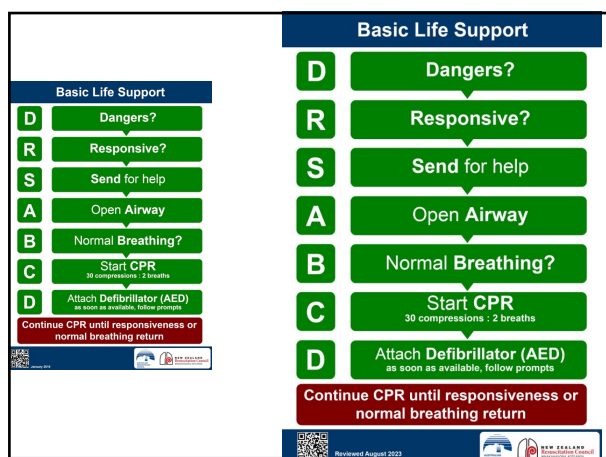


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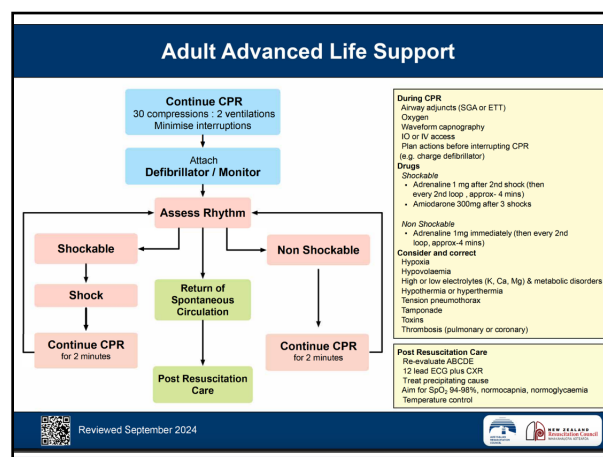
Safar et al 1959



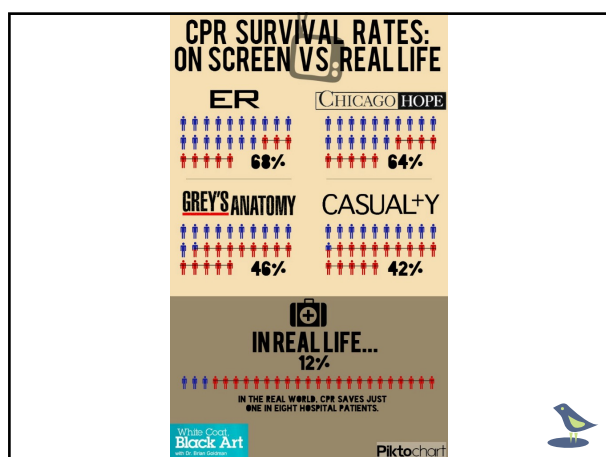
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CARDIAC ARREST SURVIVAL IS RARE WITHOUT PREHOSPITAL RETURN OF SPONTANEOUS CIRCULATION

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

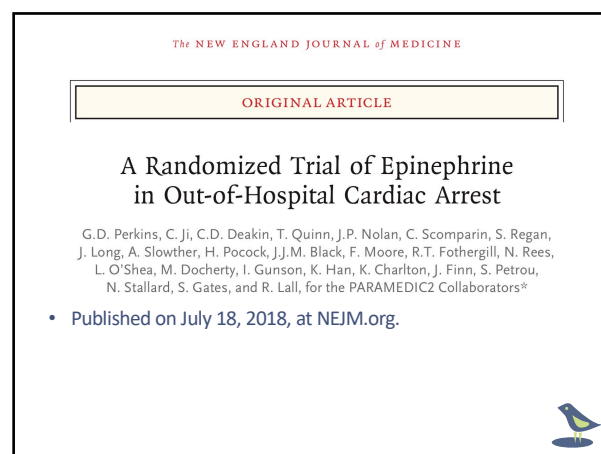
PREHOSPITAL EMERGENCY CARE OCTOBER/DECEMBER 2012 VOLUME 16 / NUMBER 4

- 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)

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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

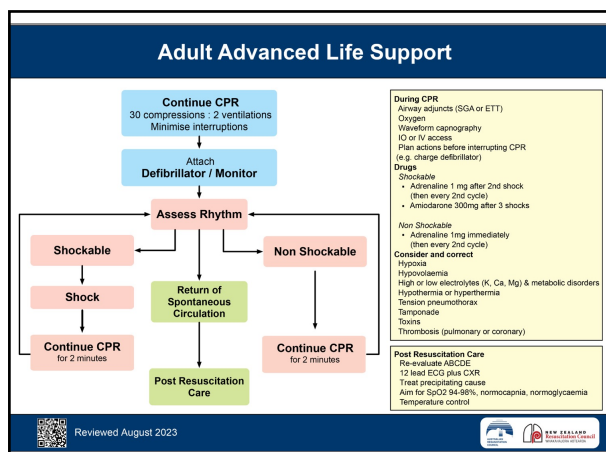
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This diagram shows the number of patients who survived to be discharged from hospital, grouped by the severity of disability after the cardiac arrest*

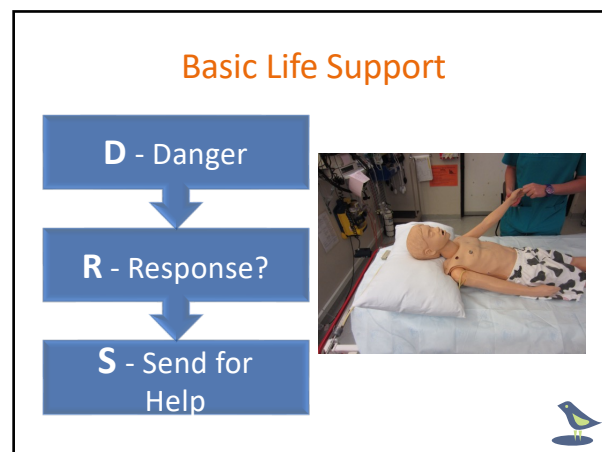
	Adrenaline (n = 126)	No adrenaline (n = 90)
No disability No symptoms at all	9.5%	16.7%
No significant disability Some symptoms but able to carry out all usual duties and activities	13.5%	11.1%
Slight disability Unable to carry out all previous activities, but able to look after own affairs without assistance	18.3%	32.2%
Moderate disability Requiring some help, but able to walk without assistance	27.8%	22.2%
Moderately severe disability Unable to walk without assistance and unable to attend to own bodily needs without assistance	9.5%	8.9%
Severe disability Bedridden, incontinent and requiring constant nursing care and attention	21.4%	8.9%
	Total 100%	Total 100%

*Assessed using the modified Rankin Scale

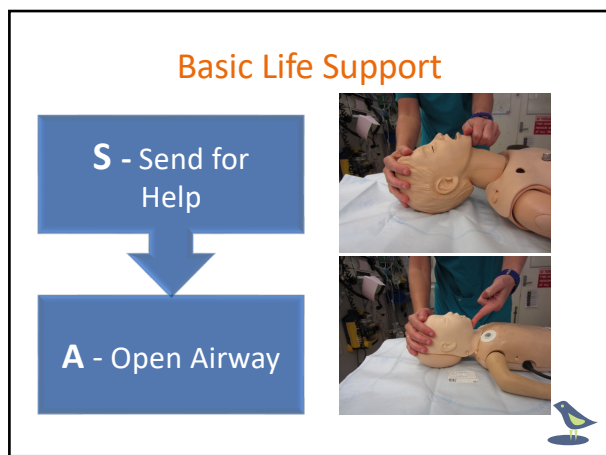
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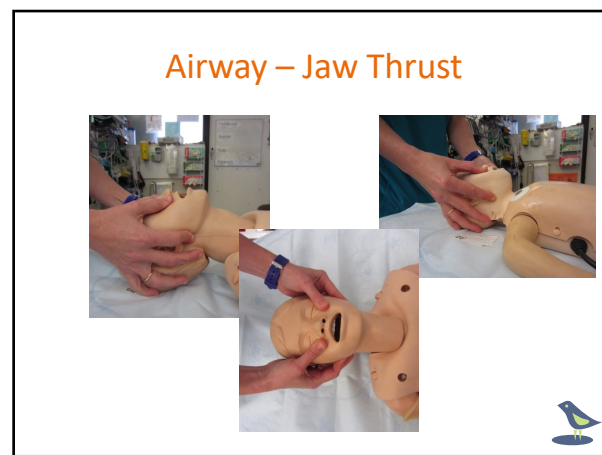
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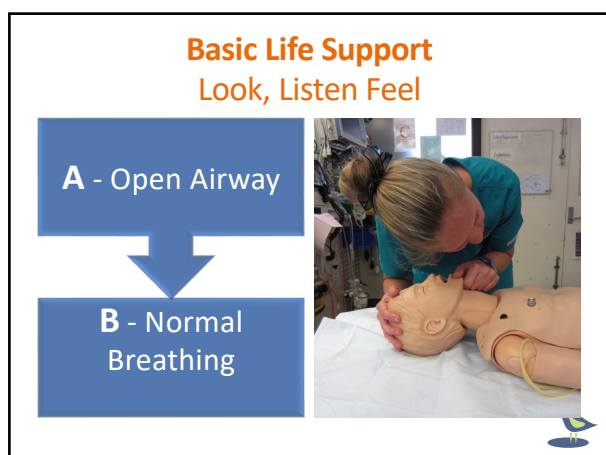
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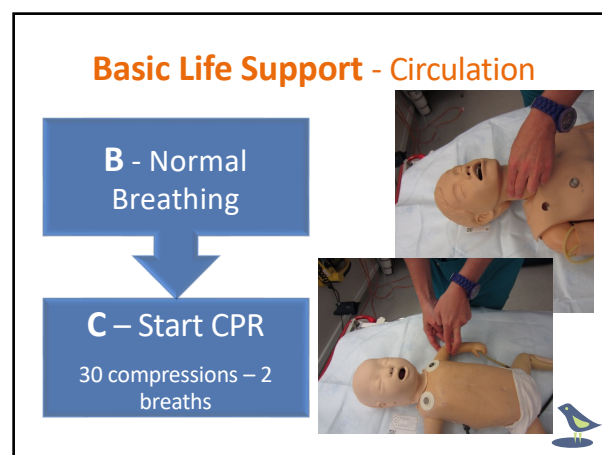
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Pulse Check and Circulation

- 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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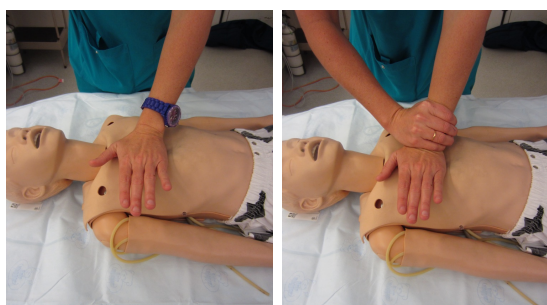
“Don’t be afraid to push too hard”

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



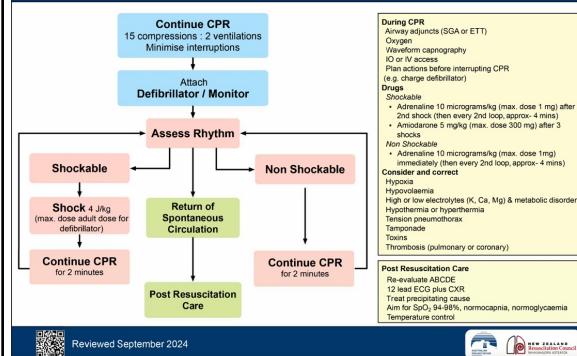
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Compressions – Hand placement older child



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Paediatric Advanced Life Support



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Basic Life Support - Circulation

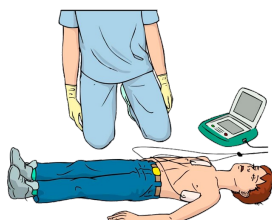
C – Start CPR

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 maneuvers



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