TIDIG HLR

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Tidig HLR

Varför ska vi göra HLR?

Varför fungerar HLR?

Hur ska vi göra HLR?

Hur ska vi få fler att göra HLR?

VARFÖR SKA VI GÖRA HLR?

Enkel, omedelbar åtgärd

Kan göras av alla
Upprätthåller viss cirkulation till hjärnan
Ökar chansen för lyckad defibrillering

HLR RÄDDAR LIV!!

Hur bra är HLR?

Jämför 5 års blodtryckssänkande behandling.

Numbers needed to treat (NNT):

125 för att förebygga ett dödsfall
100 för att förebygga 1 hjärtinfarkt
67 för att förebygga 1 stroke

HLR RÄDDAR LIV!

Table 3. Survival Rates and Number Needed to Treat by Clinical Criteria

Variable	Pooled Percentage of Cardiac Arrests With Attribute	Low Baseline Survival		High Baseline Survival	
		Pooled Survival Rate, %	NNT	Pooled Survival Rate, %	NNT
Witnessed by bystander	53% (45.0–59.9)	6.4 (3.5–9.3)	17	13.5 (5.6–21.5)	71
Witnessed by EMS	10% (8.0–11.3)	4.9 (1.3–8.4)	23	18.2 (3.7–32.8)	16
Not witnessed	36% (30.4–40.8)	0.5 (0.2–0.9)		12.1 (7.5–16.7)	
Bystander CPR	32% (26.7–37.8)	3.9 (1.8–6.0)	36	16.1 (11.5–20.7)	24
No bystander CPR	68% (62.6–74.8)	1.1 (0.5–1.8)		12.0 (10.0–14.0)	
Ventricular fibrillation/tachycardia	40% (36.6–43.3)	14.8 (9.4–20.2)		23.0 (13.8–32.2)	
No ventricular fibrillation/tachycardia	60% (56.2–62.9)	0.4 (0.2–0.6)		7.4 (6.1–8.7)	
Asystole	42% (36.0–46.8)	0.2 (0–0.3)		4.7 (1.0–8.4)	
No asystole	58% (52.9–63.8)	4.4 (2.1–6.6)		30.1 (23.8–36.4)	
Return of spontaneous circulation	22% (17.7–25.5)	15.5 (0.0–33.3)		33.6 (24.9–42.2)	
No return of spontaneous circulation	78% (74.5–82.3)	0.1 (0.0–0.2)		1.8 (1.5–2.1)	

NNT indicates number needed to treat to save 1 life.

Sasson, Circ Cardiovasc Qual Outcomes, Jan 2010.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

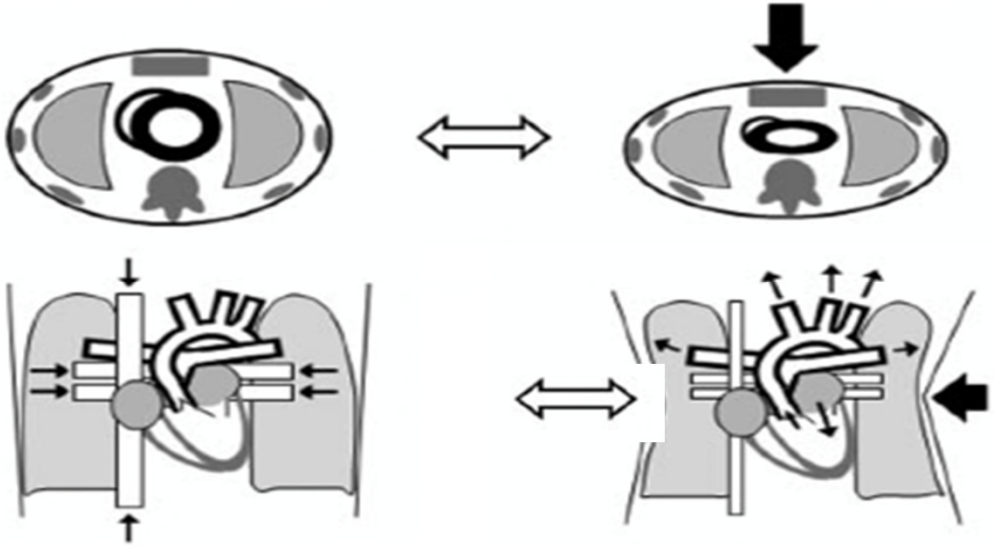
Early Cardiopulmonary Resuscitation in Out-of-Hospital Cardiac Arrest

Table 3. Odds of 30-Day Survival among Patients Who Underwent CPR before EMS Arrival.*

Group and Propensity Score Adjustment	No. of Patients with Data	Odds Ratio for 30-Day Survival†	95% Confidence Interval	99% Confidence Interval
All patients	30,381	2.80	2.55–3.09	2.47–3.18
Propensity score	19,153			
Unadjusted		2.95	2.60–3.34	2.50–3.47
Adjusted		2.15	1.88–2.45	1.80–2.56

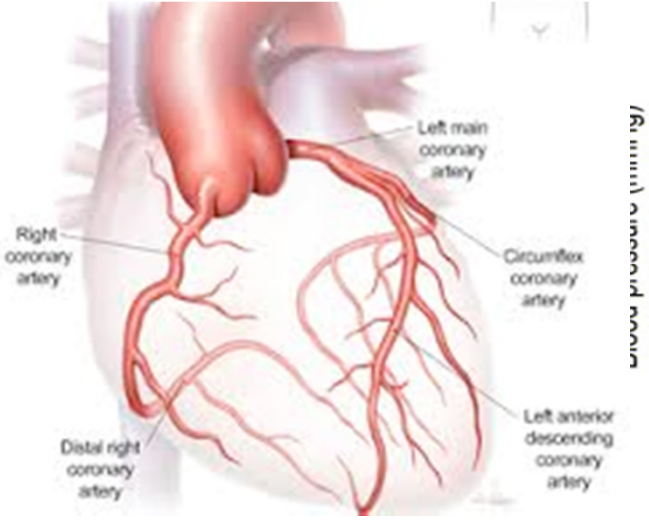
VARFÖR FUNGERAR HLR?

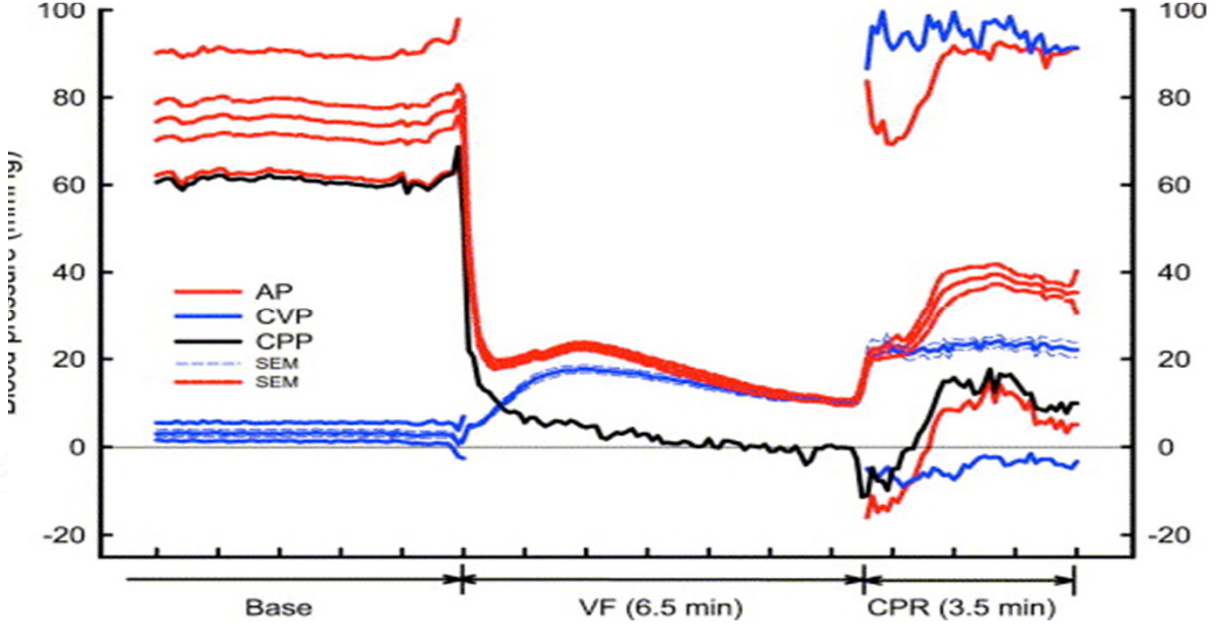
Bröstpumpen



*(*Holmberg, European Heart 2001, Valenzuela, Circulation 1997, Waalewijn, Resuscitation 2001*)

Trycket i kranskärlen





Steen, Resuscitation, (58: 3), September 2003

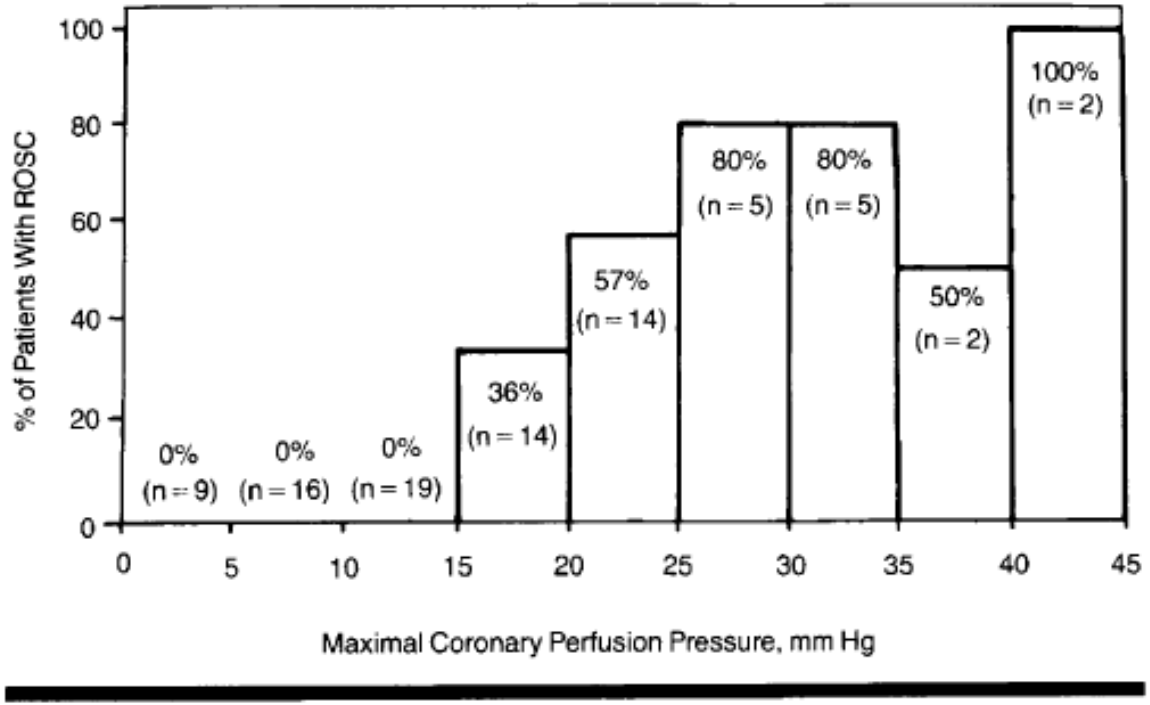
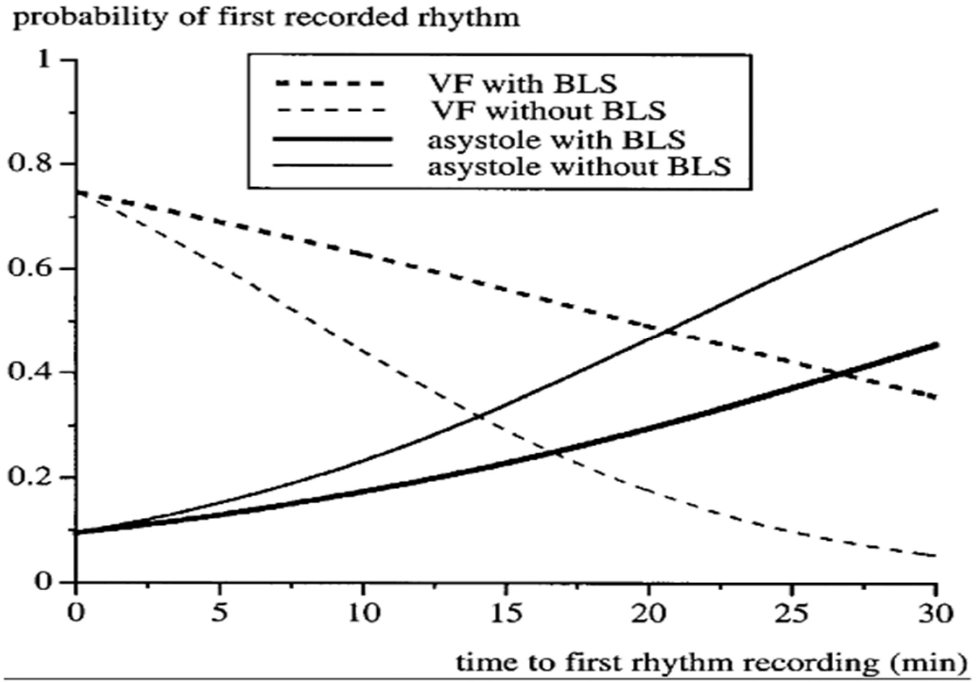


Fig 5.—Percentage of patients with return of spontaneous circulation (ROSC) as a function of the maximal coronary perfusion pressure.

Bro till defibrillering



VF Med HLR

VF Utan HLR

A. Waalewijn mfl. Resuscitation 54 (2002) 31/36

HLR viktigare vid lång responstid.

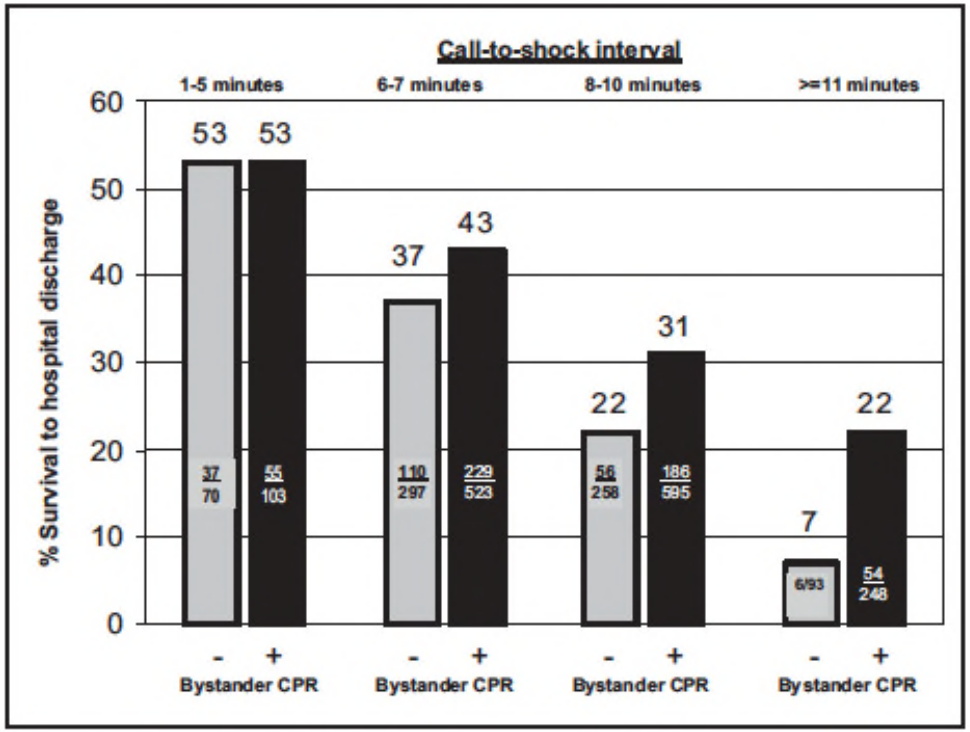
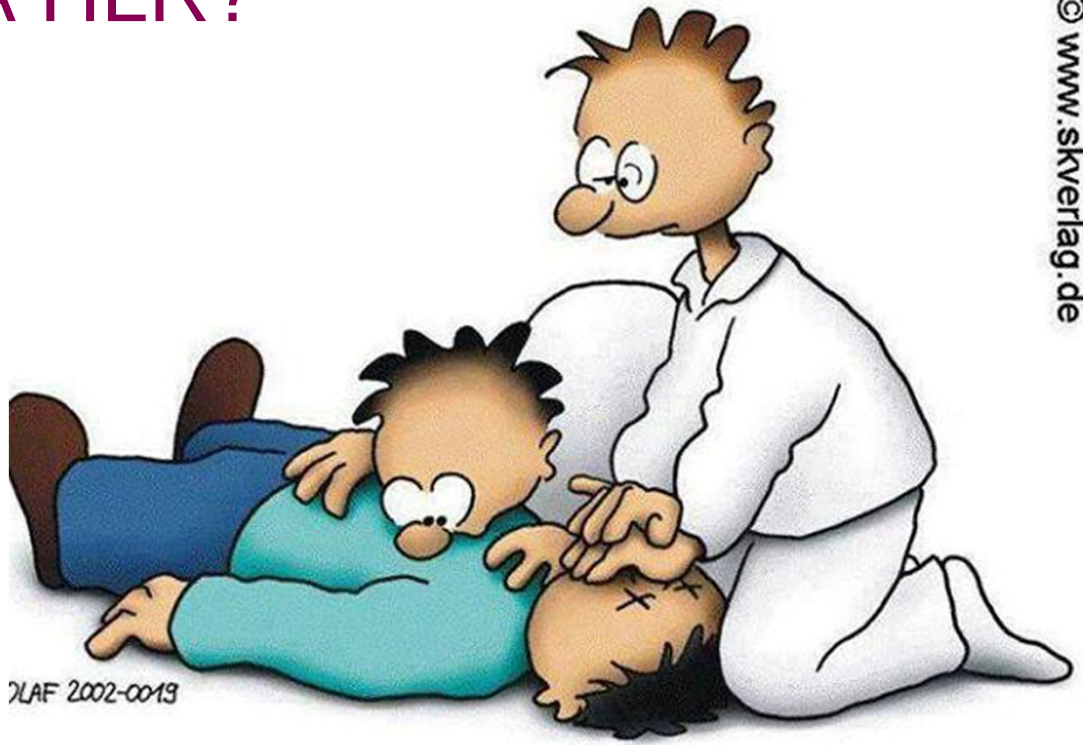


Figure 1. Survival to hospital discharge according to bystander CPR status and collapse-to-shock interval.

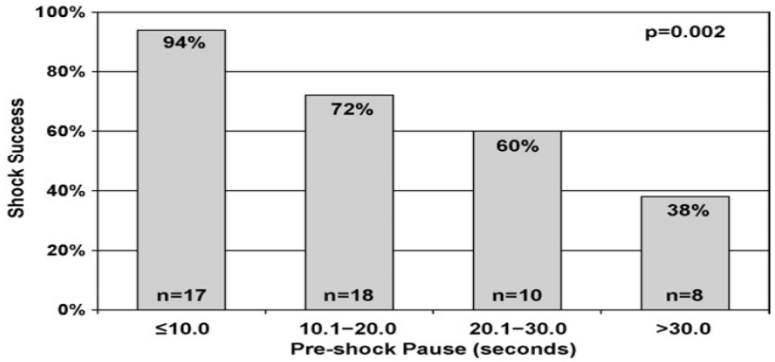
Myron L. Weisfeldt, MD; Lance B. Becker,
JAMA. 2002;288(23):3035-3038.

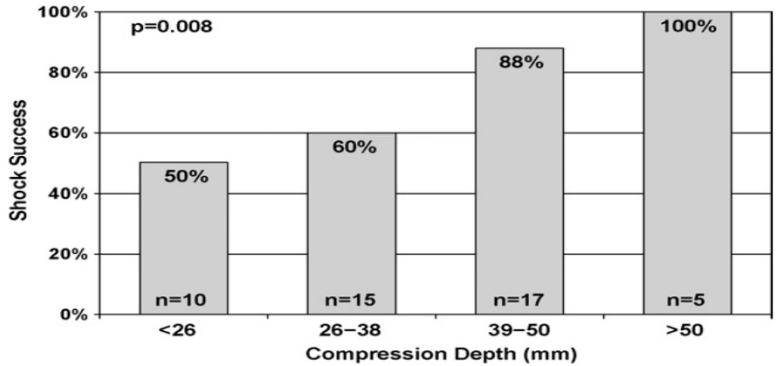
HUR SKA VI GÖRA HLR?



Kvalite i bröstkompressioner

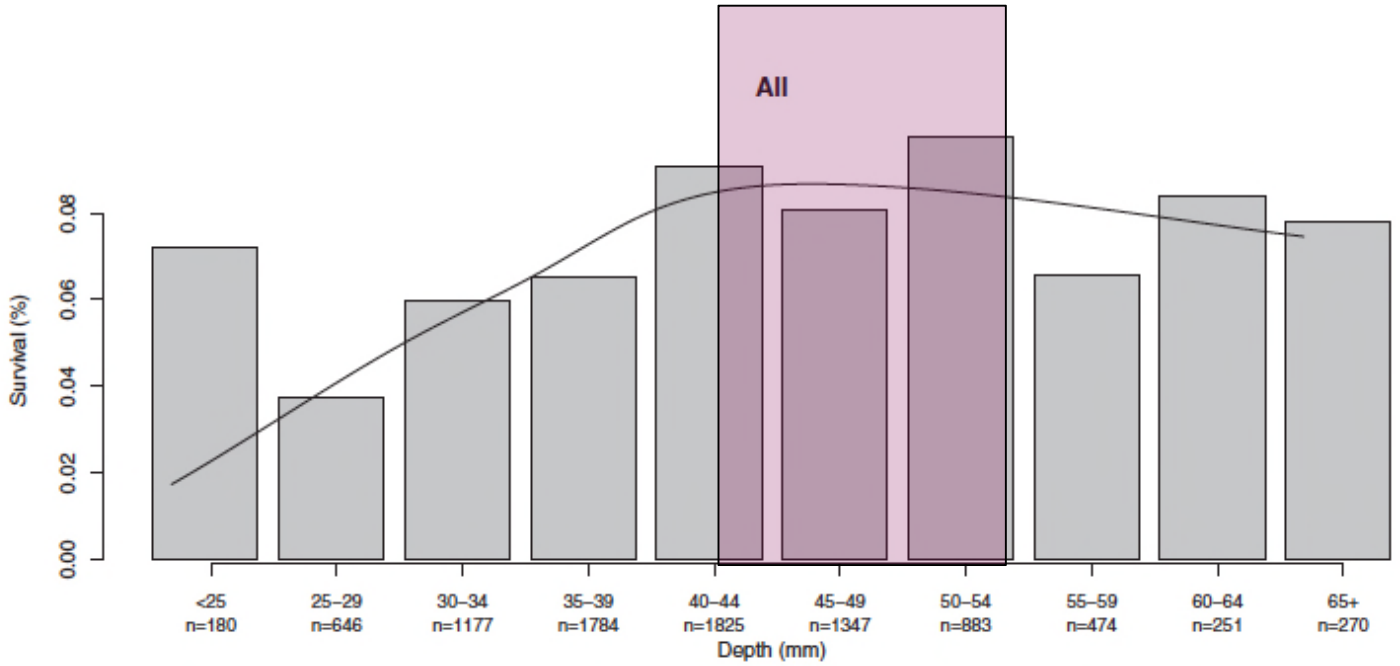
Clinical effects of compression and pre-shock pauses 141





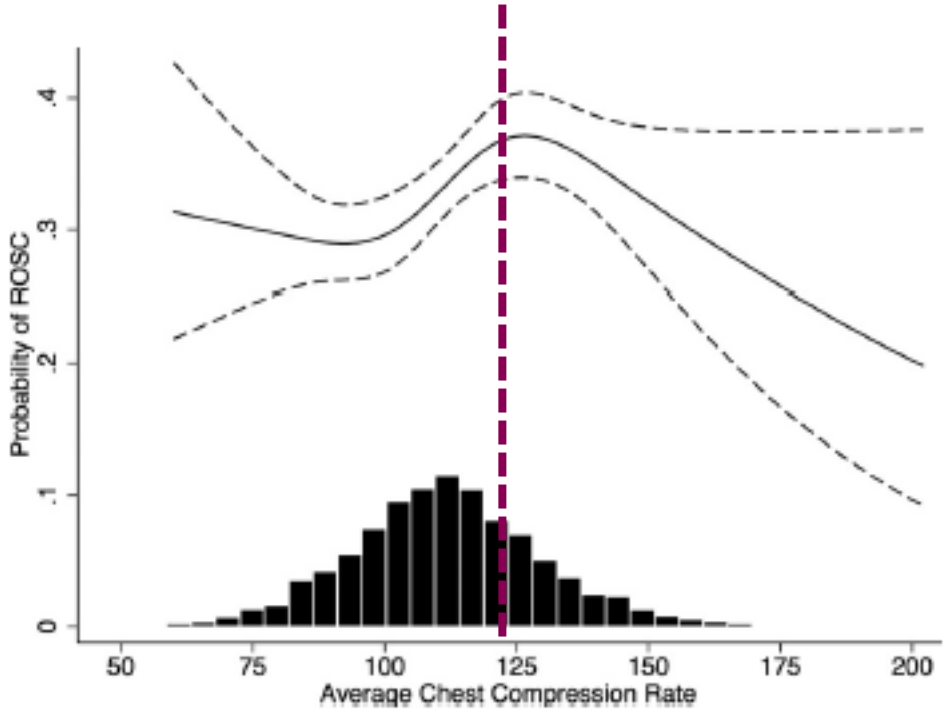
Edelson, D. Resuscitation Nov 2006

Djup av bröstkompressioner



Stiell et al Circulation November 25, 2014

Bröstkompressionstakt och ROSC

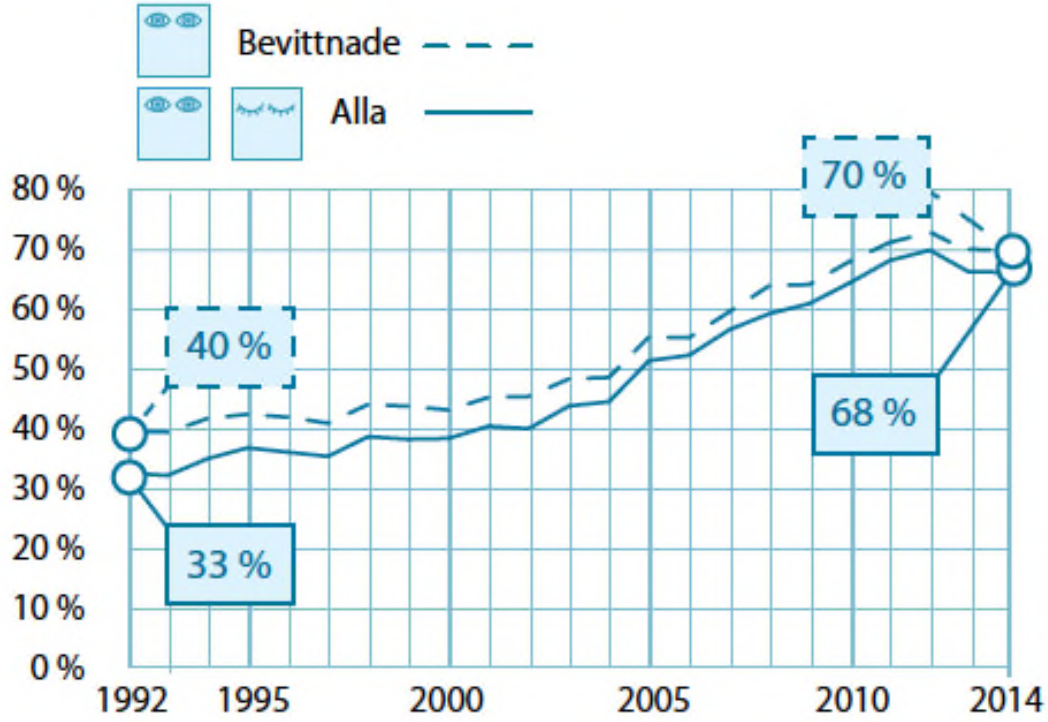


Idris et al, Circulation Jun 2012

Inblåsningar?

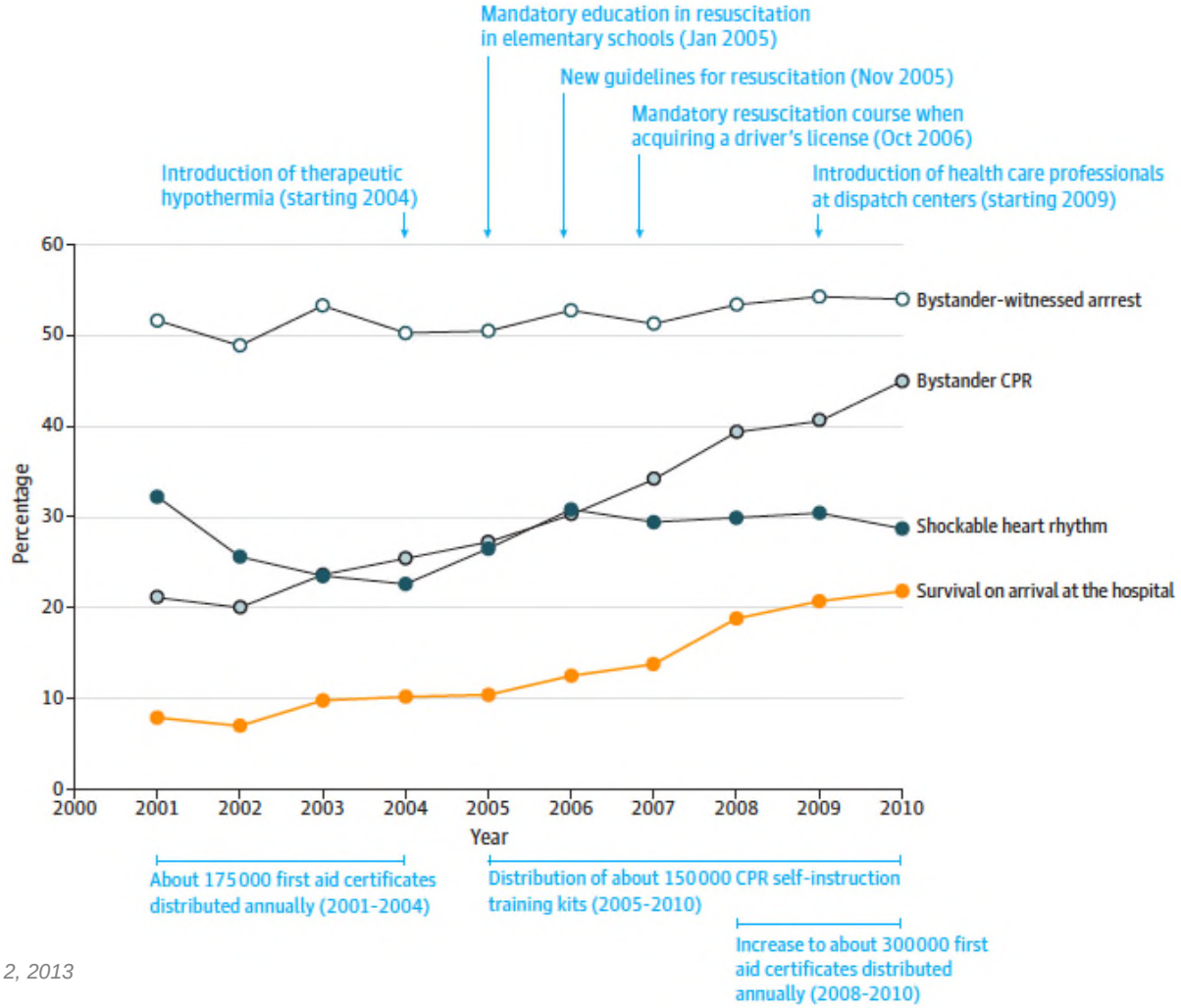
HUR SKA VI FÅ FLER ATT GÖRA HLR?

Andel bystander HLR



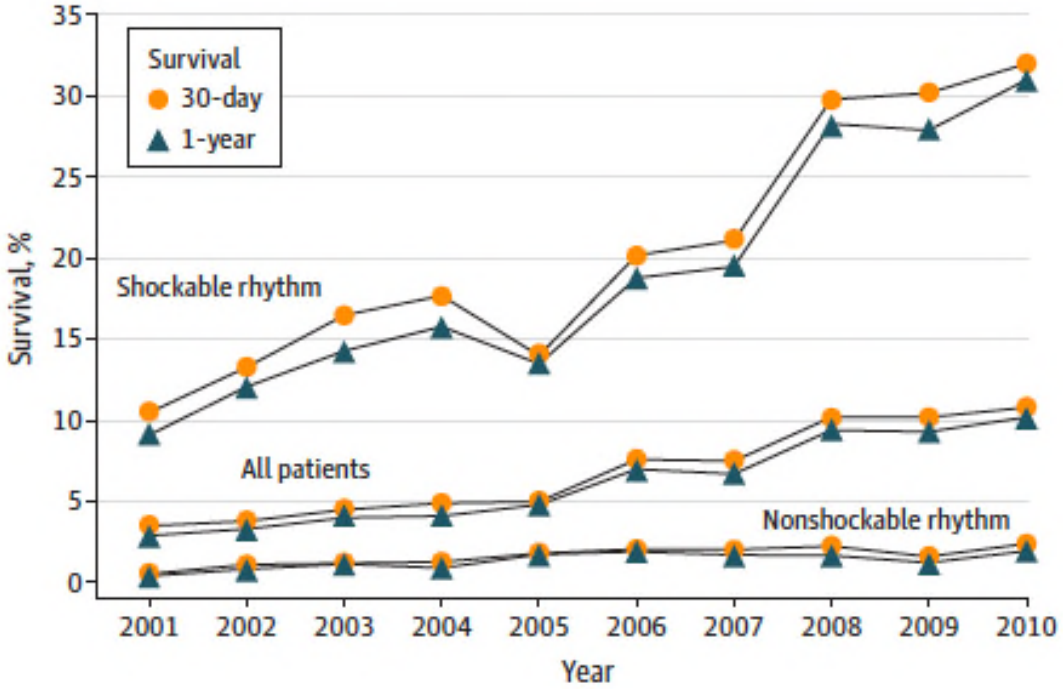
Hur öka HLR?


HARD
FAST
HANDS-ONLY CPR
Call 999. Then push Hard and Fast to the beat of Stayin' Alive
It's not as hard as it looks



Wissenberg, JAMA, Oktober 2, 2013

Figure 3. Survival Following Out-of-Hospital Cardiac Arrest, 2001-2010




TELIA 3G
13:45
10 %
Larm
Ånggårdsbergen
Safjället
Misstänkt hjärtstopp
Hämta hjärtstartare och ta dig til hjärtstoppet
3671 m
Hjärtstartare
Chalmers Tekniska Högskola / Tillämpad Mekanik
1906 m
Hörsalsvägen 7, 2. våning
Hjärtstopp
Smidesvägen 12, 3. våning, Till höger i korridoren.

© UMS

SMSlivräddare

Table 2. Primary and Secondary Outcomes.*

Outcome	Intervention	Control	Difference (95% CI)	P Value
	no. of patients/total no. (%)		*percentage points*	
Primary outcome: bystander-initiated CPR	188/305 (61.6)	172/360 (47.8)	13.9 (6.2 to 21.2)	<0.001
Secondary outcome				
30-day survival	32/286 (11.2)	28/326 (8.6)	2.6 (−2.1 to 7.8)	0.28
Return of spontaneous circulation	90/306 (29.4)	105/361 (29.1)	0.3 (−6.5 to 7.3)	0.93
Shockable rhythm: ventricular fibrillation or ventricular tachycardia	58/301 (19.3)	60/347 (17.3)	2.0 (−4.0 to 8.0)	0.52
Bystander-initiated CPR including CPR performed with telephone instructions	196/305 (64.3)	197/360 (54.7)	9.5 (2.0 to 16.9)	0.01

* CI denotes confidence interval.

N Engl J Med. 2015 Jun 11;372(24):2316-25

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