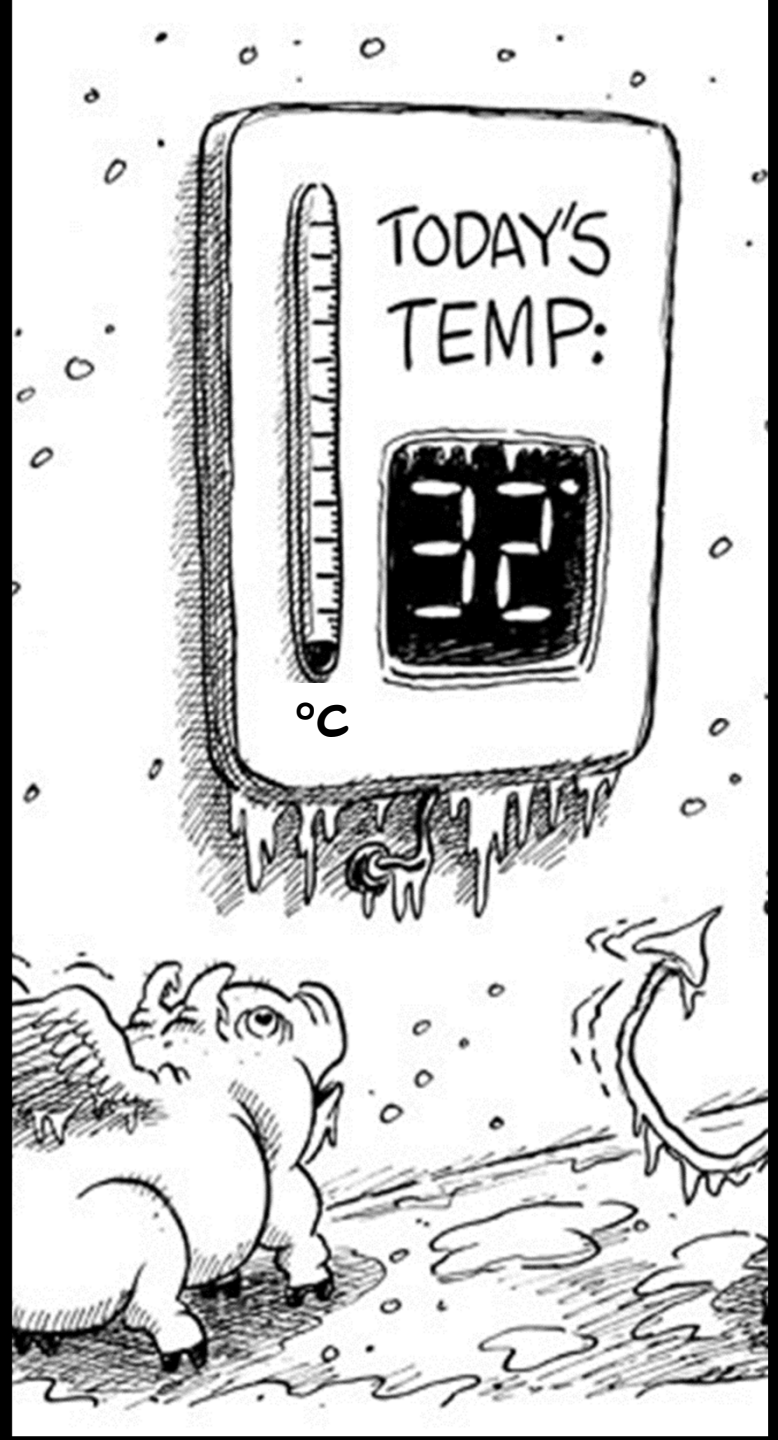
Ska vi kyla barn efter hjärtstopp?

Helena Winberg


TODAY'S
TEMP:
°C

Excellent Outcome With Extracorporeal Membrane Oxygenation After Accidental Profound Hypothermia (13.8°C) and Drowning

Birgitta S. Romlin, MD, PhD[1]; Helena Winberg, MD[1]; Magnus Janson, MD[1]; Boris Nilsson, MD[1]; Kerstin Björk, CCP[2]; Anders Jeppsson, MD, PhD[2,3]; Gunilla Drake, MD[4]; Andreas Claesson, RN, PhD[5]

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children

N ENGL J MED 372;20 NEJM.ORG MAY 14 2015

ORIGINAL ARTICLE

Therapeutic Hypothermia after In-Hospital Cardiac Arrest in Children

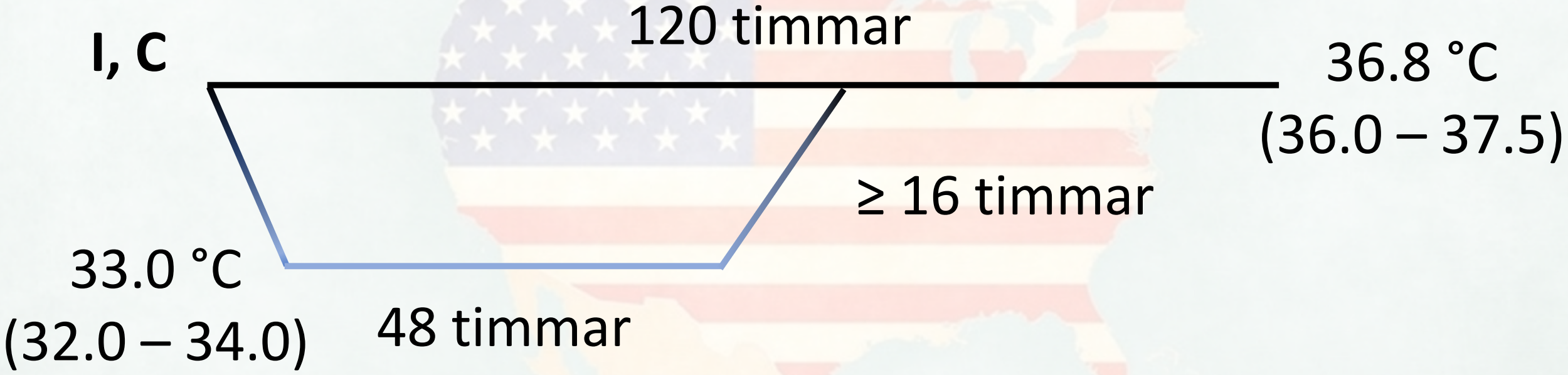
N ENGL J MED 376;4 NEJM.ORG JAN 24 2017

P

RCT 37 center i USA och Canada

Barn > 48 timmar (GA > 38 veckor) < 18 år som krävt hjärtkompressioner ≥ 2 min och som var fortsatt beroende av mekanisk ventilation efter ROSC

I, C



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children

N ENGL J MED 372;20 NEJM.ORG MAY 14 2015

295 randomiserade patienter av 1355 screenade

ORIGINAL ARTICLE

Therapeutic Hypothermia after In-Hospital Cardiac Arrest in Children

N ENGL J MED 376;4 NEJM.ORG JAN 24 2017

329 randomiserade patienter av 2791 screenade

Överlevnad + bra neurologiskt outcome
= VABS II över 70 vid 12 mån

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Therapeutic Hypothermia after Out-of-Hospital Cardiac Arrest in Children

N ENGL J MED 372;20 NEJM.ORG MAY 14 2015

Hypotermi 20%
Normotermi 12%

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Hypotermi 36%
Normotermi 39%

Överlevnad + bra neurologiskt outcome
= VABS II över 70

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ORIGINAL ARTICLE

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N ENGL J MED 372;20 NEJM.ORG MAY 14 2015

Hypotermi 20%
Normotermi 12%

p=0,14

ORIGINAL ARTICLE

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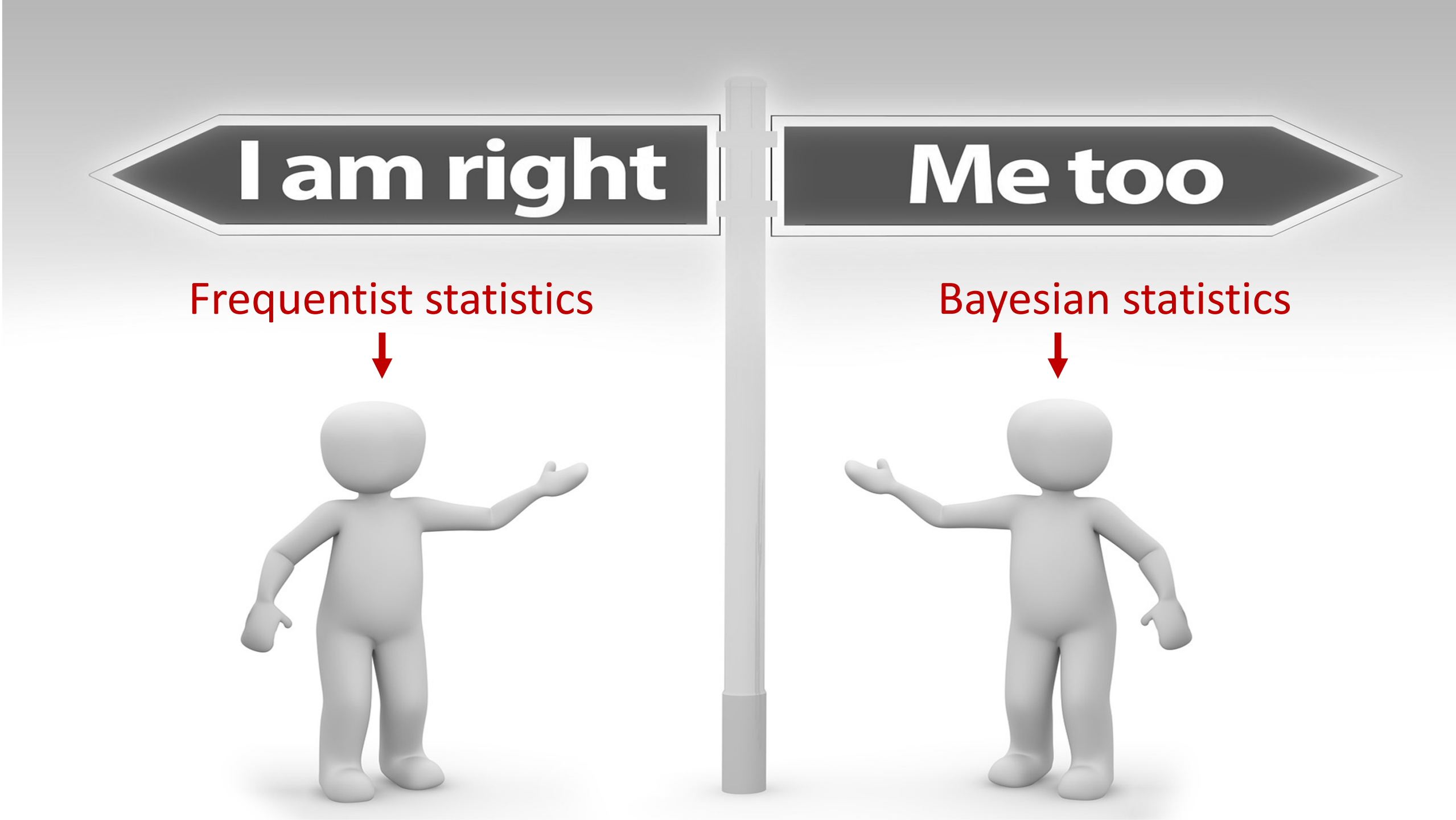
N ENGL J MED 376;4 NEJM.ORG JAN 24 2017

Hypotermi 36%
Normotermi 39%

p=0,63


I am right
Me too
Frequentist statistics
Bayesian statistics

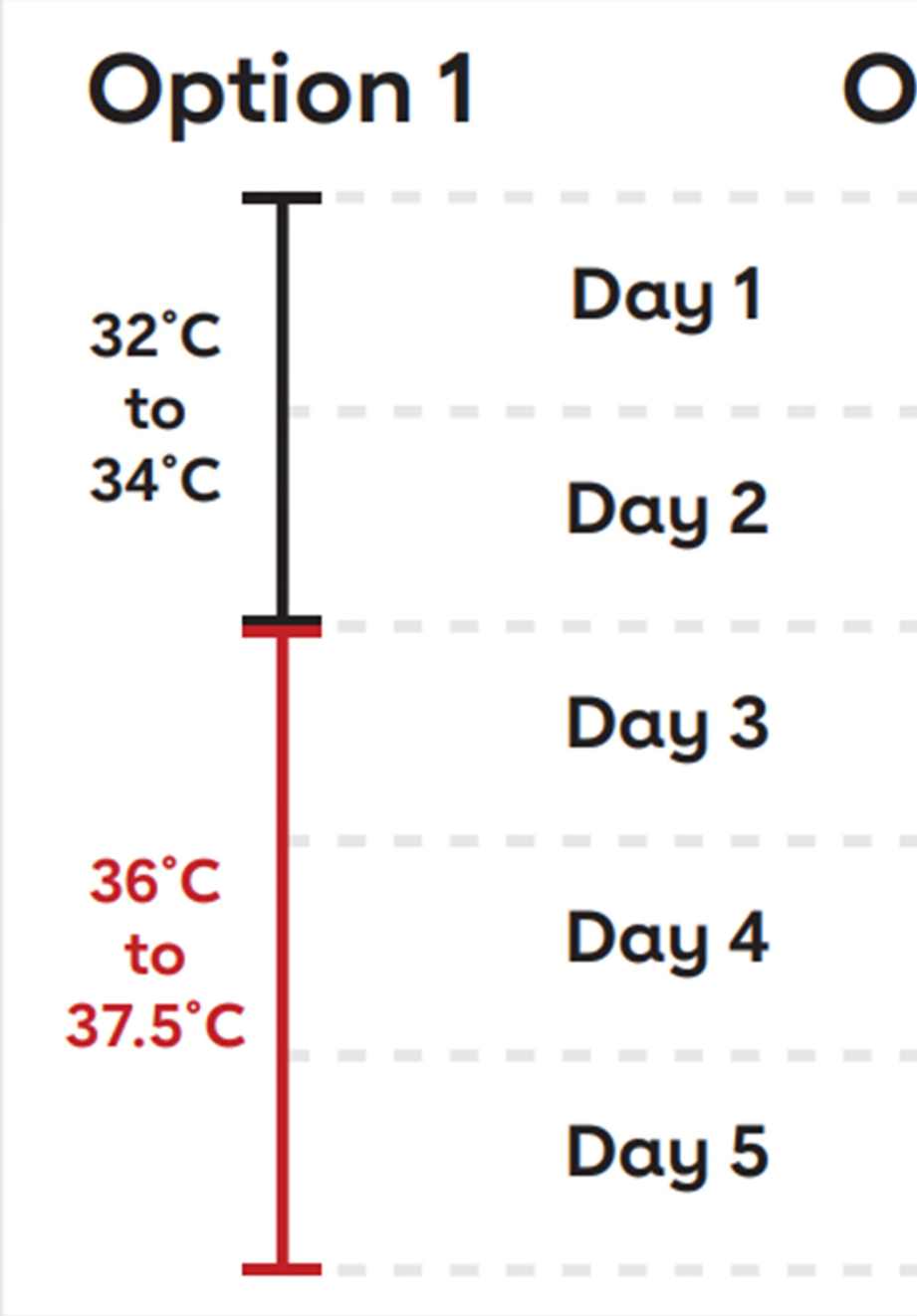
”there is inconclusive evidence to support or refute the use of therapeutic hypothermia (32 °C to 34 °C) compared with therapeutic normothermia (36 °C to 37.5 °C) (or an alternative temperature) for children who achieve ROSC but remain comatose after OHCA or IHCA.”

Statement on post cardiac arrest temperature management in children. November 2021. ILCOR Pediatric Life Support (PLS) Task Force

For patients between 24 hours and 18 years of age who remain comatose after cardiac arrest, **there are 2 reasonable options:**

Option 1: Use TTM to maintain 32°C to 34°C, followed by TTM to maintain 36°C to 37.5°C.

Option 2: Use TTM to maintain 36°C to 37.5°C.

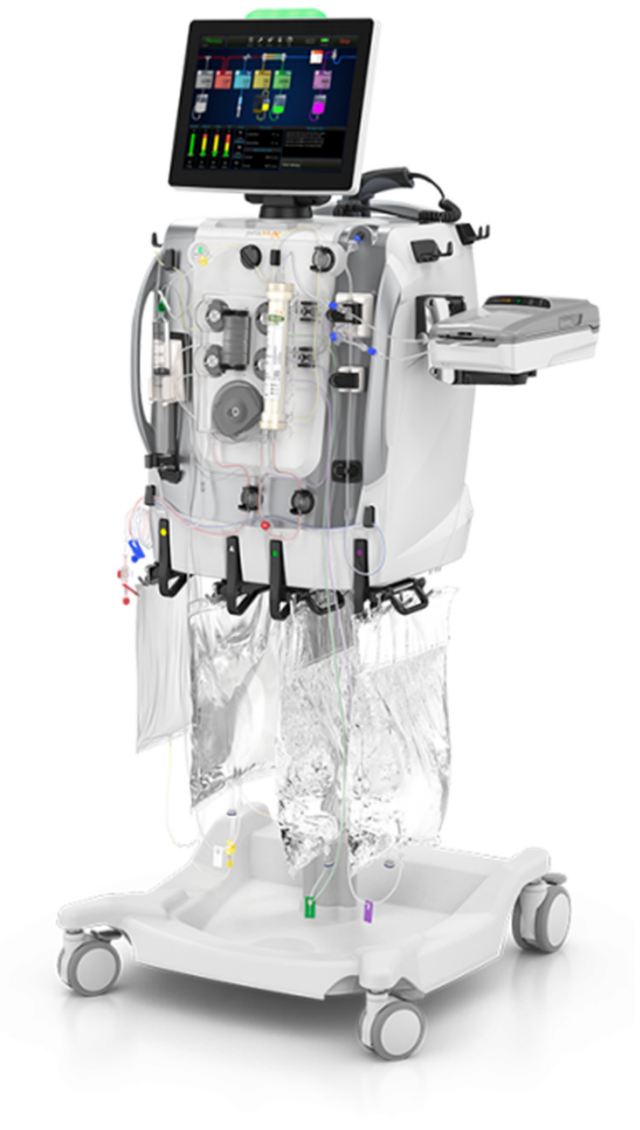


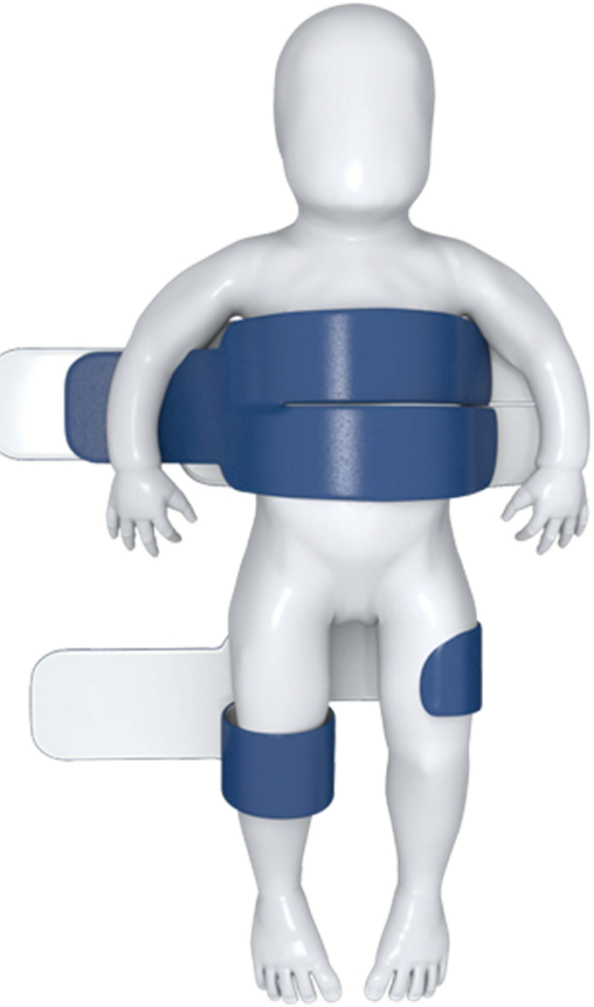
American Heart Association®

Om barnet inte återfår medvetandet efter ROSC

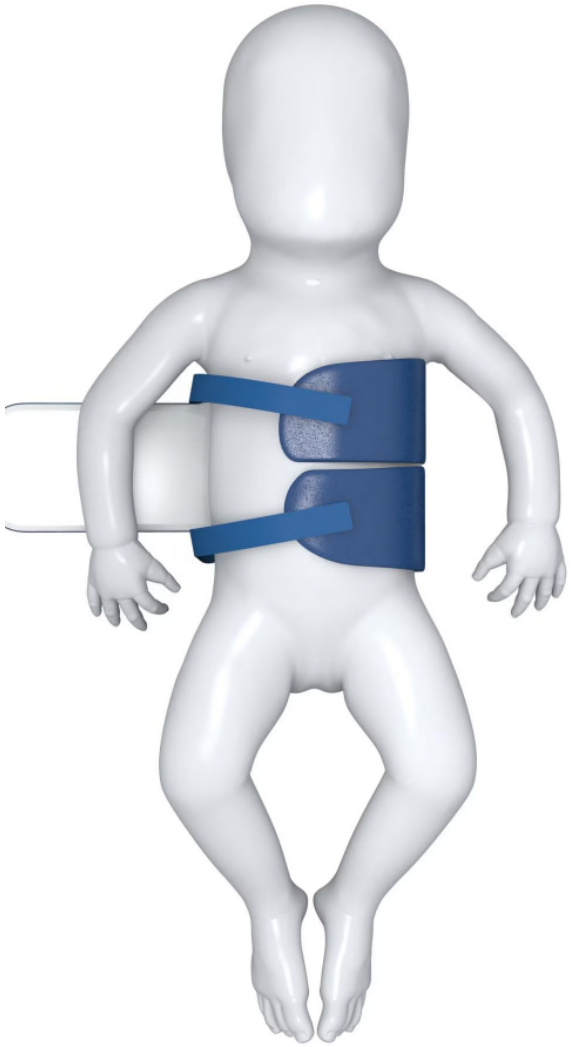
- Kontrollerad normotermi (TTM)
- 35,5-36,8 grader 72h

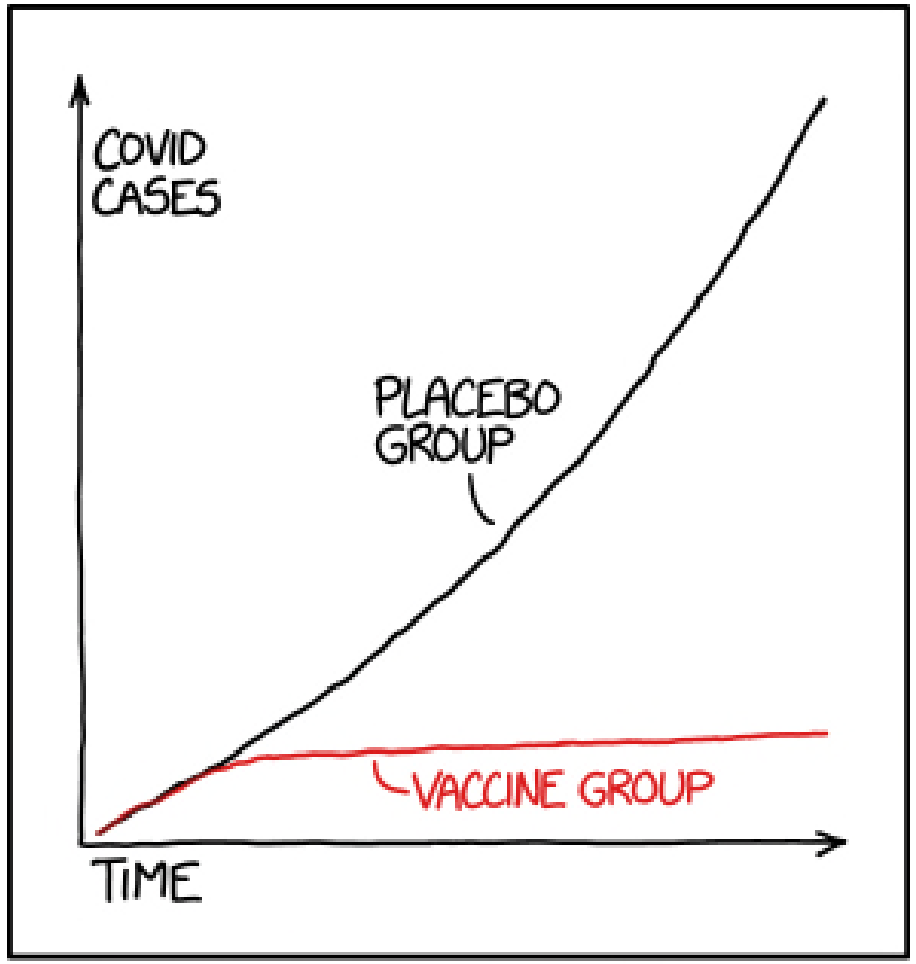
- Aktivt motverka feber ytterligare 48h





ARCTIC SUN
TEMPERATURE MANAGEMENT SYSTEM
Medivance





STATISTICS TIP: ALWAYS TRY TO GET DATA THAT'S GOOD ENOUGH THAT YOU DON'T NEED TO DO STATISTICS ON IT

Kedjan som räddar liv