

Public Access Defibrillation and Dispatch

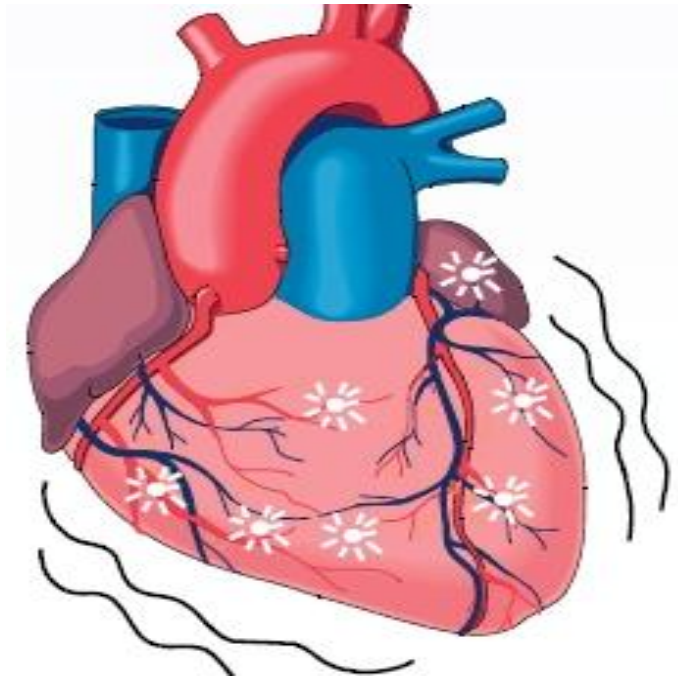
LTC (Dr) Ng Yih Yng
Chief Medical Officer
Singapore Civil Defence Force

What causes
most



cardiac arrests

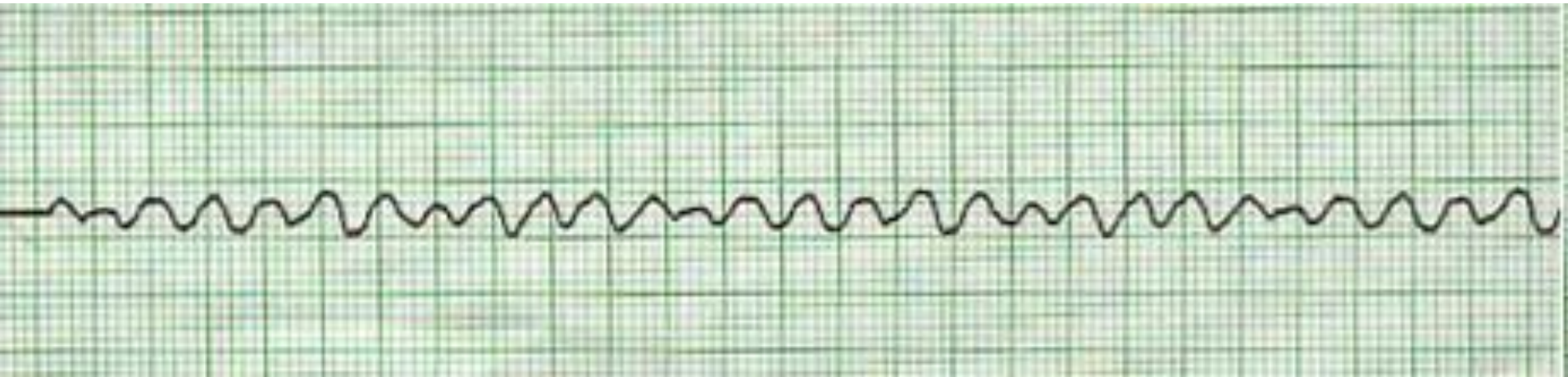
The answer: ventricular fibrillation



Ventricular fibrillation (VF) is a heart rhythm that causes the heart to quiver instead of pumping in an organized fashion... leading to cardiac arrest.

The abnormal rhythm of

ventricular fibrillation



can **ONLY** be **corrected**
by a defibrillation
shock

How does Public Access Defibrillation help?

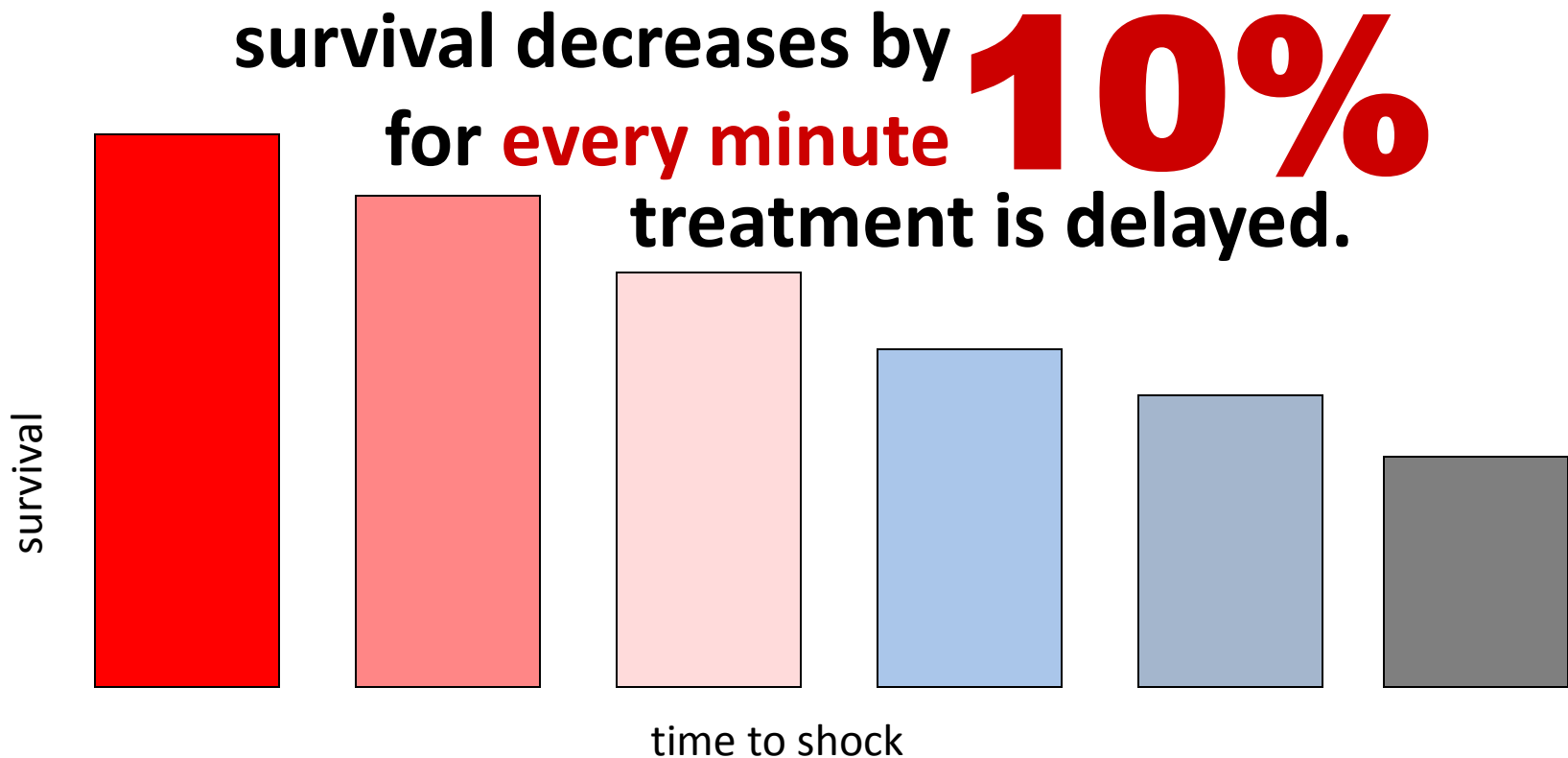
It takes 2-4 minutes for a bystander to use an AED



It takes 2-3 times as long for EMS to reach a patient for defibrillation



Immediate treatment is critical



Are public AED effective?

Factors	n (%)	Discharged Alive	
		Odds Ratio	95% CI
Bystander CPR	801 (20.3)	2.29	1.17 – 4.39
Public Access Defibrillation	14 (0.36)	11.10	1.18 – 51.6
FRP dispatched	97 (2.46)	4.63	1.58 – 11.1
Ambulance defibrillation	853 (21.6)	6.04	3.47 – 10.71
EMS mechanical CPR	30 (0.76)	2.25	0.05 – 14.05
Hospital mechanical CPR	328 (8.32)	1.22	0.43 – 2.88
Hospital hypothermia therapy	10 (0.25)	28.9	4.72 – 131.0

An **AED** is the device that
can safely and correctly
deliver a **lifesaving shock.**



Are AEDs safe?

- It will only shock a person in ventricular fibrillation
- No serious injury ever reported from Public AED usage
- However, normal AED safety rules still apply
 - Contact with water
 - Metal surfaces
 - Scene danger

Which is safer - Using a Fire Extinguisher or an AED?

4% of people who died from fires were fighting it
35% of people who injured by fires were fighting it



No fatalities or injuries



Mell HK, Sayre MR. Public Access Defibrillators and Fire Extinguishers: Are Comparisons Reasonable? Progress in Cardiovascular Diseases. 2008;51(3):204–212.

Hall JR: Characteristics of Home Fire Victims. Quincy, MA: National Fire Protection Association; 2005

Will I get sued if the AED wasn't used right?

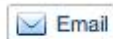


- The layers of protection
 - Training
 - Protocols
 - Quality Assurance
 - Quality Improvement
 - Legislation

People expect professionals to help!

Calif. woman dies after nurse refuses to do CPR

By GOSIA WOZNIACKA and TRACIE CONE | Associated Press – Tue, Mar 5, 2013



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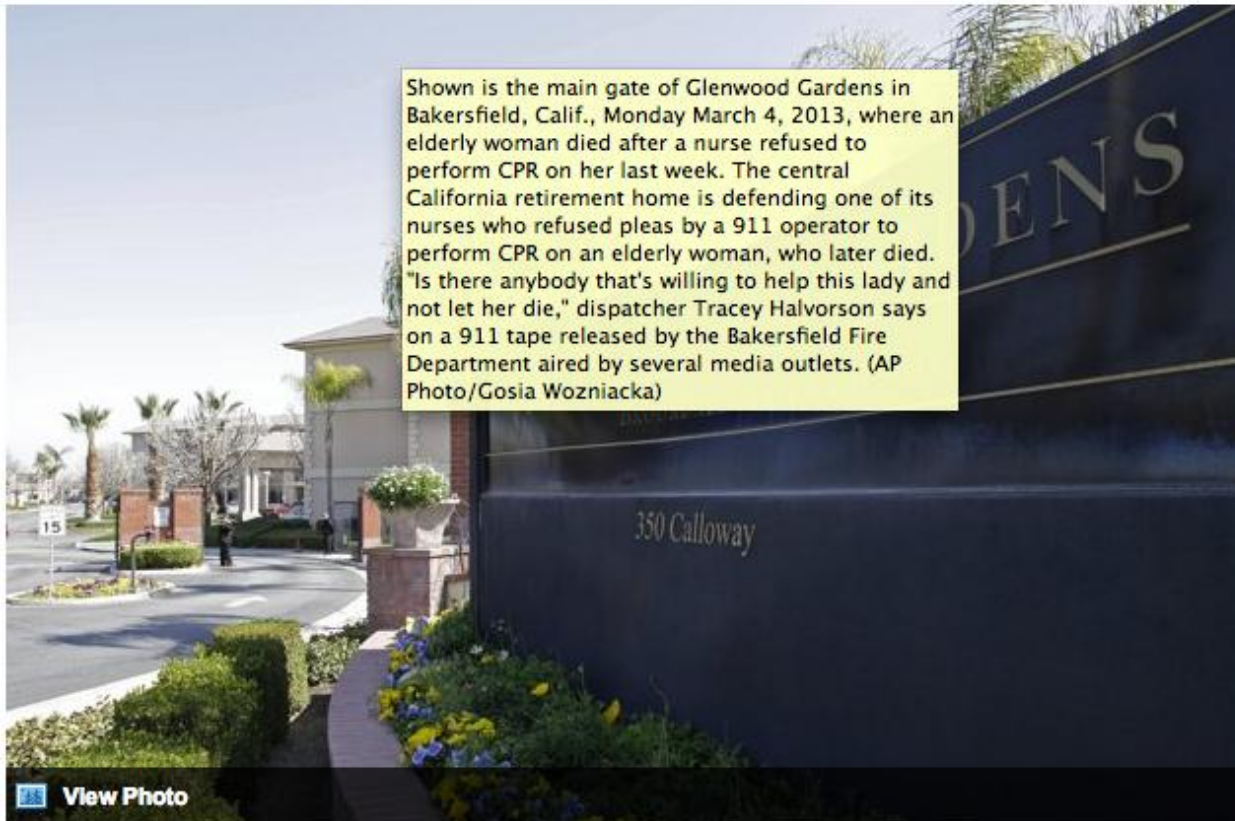


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Print



Shown is the main gate of Glenwood Gardens in Bakersfield, Calif., Monday March 4, 2013, where an elderly woman died after a nurse refused to perform CPR on her last week. The central California retirement home is defending one of its nurses who refused pleas by a 911 operator to perform CPR on an elderly woman, who later died. "Is there anybody that's willing to help this lady and not let her die," dispatcher Tracey Halvorson says on a 911 tape released by the Bakersfield Fire Department aired by several media outlets. (AP Photo/Gosia Wozniacka)



View Photo

Associated Press/Gosia Wozniacka - Shown is the main gate of Glenwood Gardens in Bakersfield, Calif., Monday March 4, 2013, where an elderly woman died after a nurse refused to perform CPR on her last week. ...[more](#) ▾

Integrating AEDs into Dispatch

Data

- Legislation
- Self-reporting
- Crowd sourcing

Program

- Registry
- Dispatch Trg
- Standards
- Quality Assurance
- Quality Improvement

Awareness

- Recognize Cardiac Arrest
- Early Access
- CPR/AED trg

Be on the lookout for the Public Access Defibrillator -



Because I'm
worth it!

Familiarise yourself



HeartSine

- Turn On
- Pull Green Tab
- Paste pads
- Analyse
- Shock/No shock



i-Pad

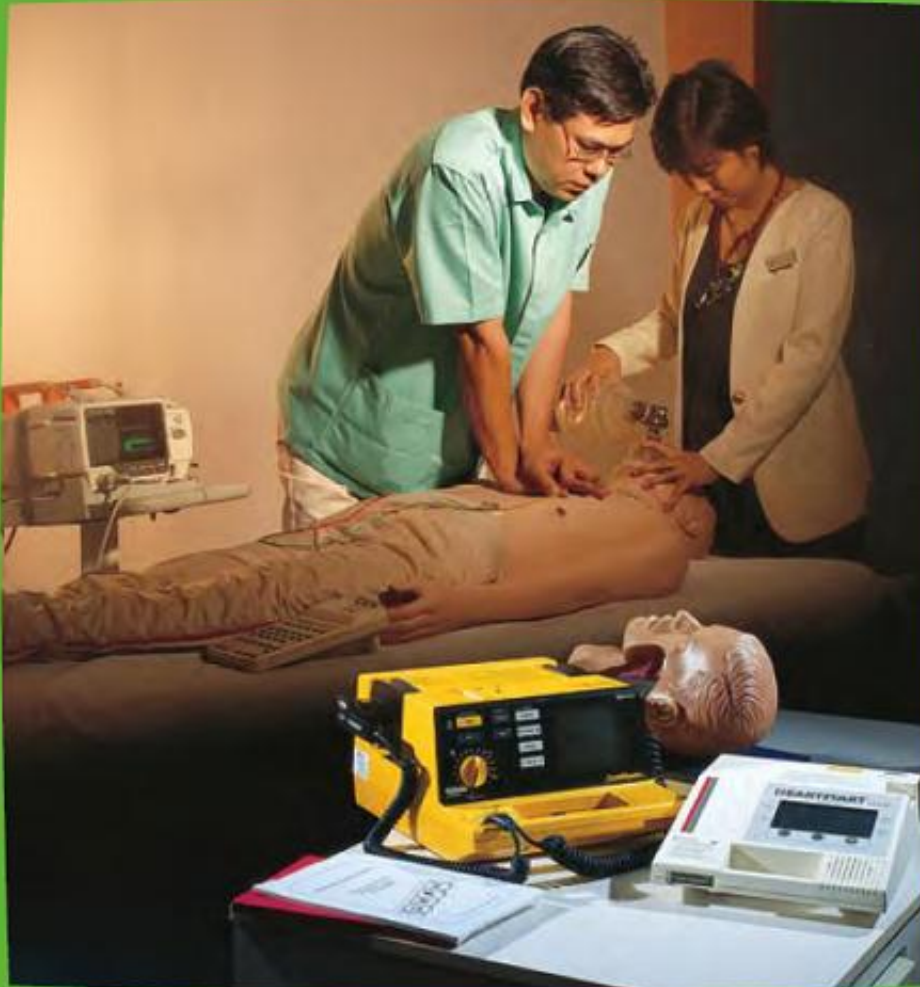
- Open Lid
- Turn On
- Attach Connector
- Paste Pads
- Analyse
- Shock/No shock



Philips Onsite

- Pull Handle
- Paste pads
- Analyse
- Shock/No shock

CPR + AED PROGRAMME



Institute for Medical Simulation & Education

Be current with
CPR + AED
Training
to be confident in
giving
instructions

A photograph of Richard Branson, an older man with white hair and a goatee, wearing a white t-shirt and sunglasses on his head. He is sitting at a table, leaning his head on his hand, looking intently at a chessboard. The background is dark with some greenery and warm lighting. The quote is overlaid on the right side of the image.

“
Chance favours
the prepared
mind. The more
you practice, the
luckier you
become.”
”

Richard Branson

Summary

- Public Access Defibrillation is a tool that dispatchers can use to significantly improve cardiac arrest survival
- Always lookout for the public AED in appropriate places – It's worth it!
- The more you prepare, the luckier you become!

Questions?

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