

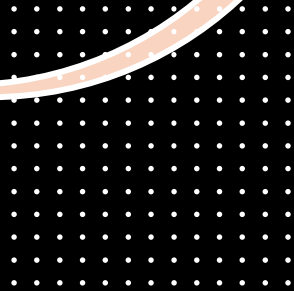


## Some “*Shocking*” and “*Non-Shock*”ing Outcomes...

Kerry Bachista, MD  
St. Johns County Fire Rescue

Lewis Siegel, MD  
Chesapeake (VA) Fire Rescue

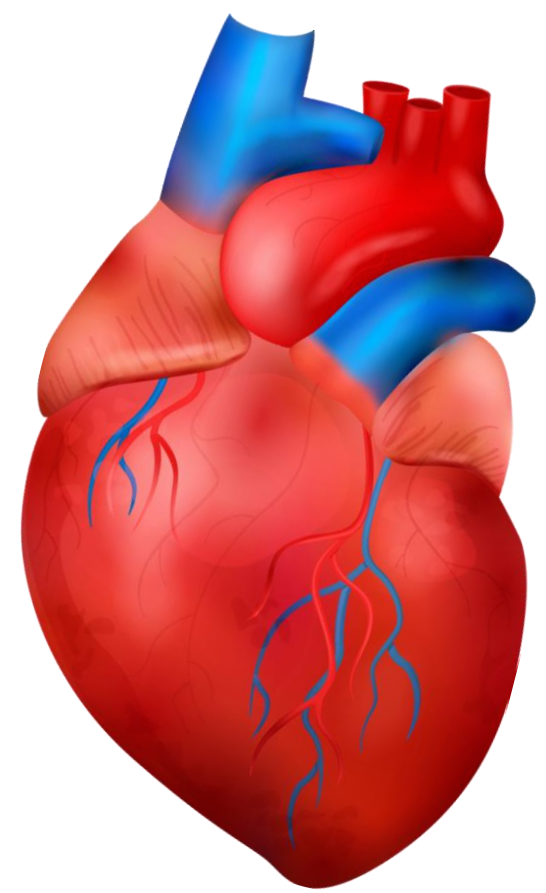
Peter Antevy, MD  
Chief Charlie Coyle  
Palm Beach County Fire Rescue



Chesapeake Fire Department

# Neuroprotective CPR impact on PEA

Lewis Siegel, M.D.



# PEA CARES data starting February 2022

77 witnessed

37 unwitnessed

40 witnessed by 911 responders

**20/154=13%**

**CPC 1 or 2**

**2023 data 18%, since January  
of this year, 16% CPC 1 or 2**



# Recent Case Synopsis

## 5-4-24

- 21-year-old playing basketball at neighborhood court

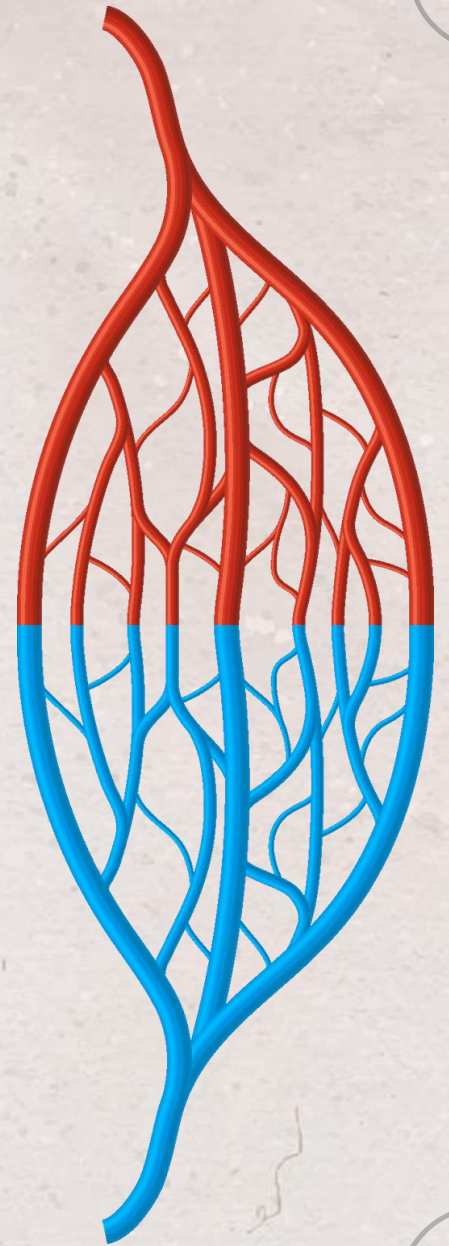
Initially dispatched as a seizure.

1 engine company and 1 medic unit started responding, a BLS response

ALS was requested during the response. A Field Medical Officer started responding

On arrival, the company officer announced he had a cardiac arrest and to upgrade the response to an Echo dispatching an additional engine company (ALS) and a battalion chief.

Medic unit arrived on scene 2 minutes and 19 seconds after being dispatched.



# Case synopsis continued

ALS engine arrived on scene 7 minutes after the medic unit arrived.

The paramedic had concerns with the positioning of the supraglottic airway, removed the SGA and intubated the patient.

This was followed by a Tibial IO, an EPI push then EPI drip.

Subsequently, rhythm was noticed to be v-fib, shocked at 200J.

CPR resumed.

Next pulse check: patient was in sinus tach with a palpable pulse. ResQPOD was removed, 12 lead obtained and transmitted.

During transport, patient had spontaneous respirations and airway reflexes. Patient received 5mg of Versed for post-intubation sedation

From Dispatch to ROSC was 23 minutes.

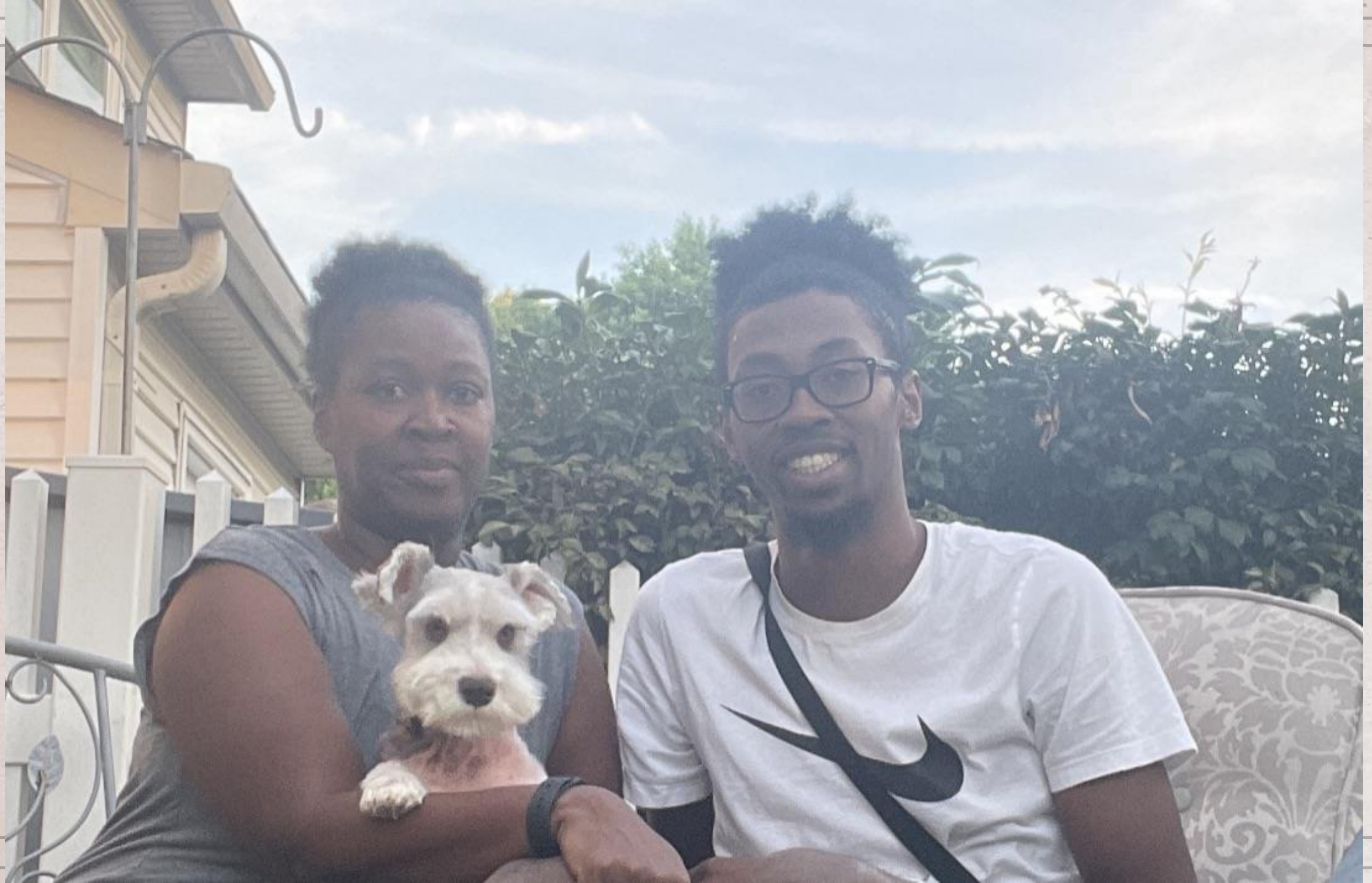
From FMC to ROSC was 18 minutes.

**Received full neuroprotective bundle**

**Post arrest, patient was cooled**

**Neuro status continued to improve during hospitalization, discharged home with LifeVest**





Kerry Bachista, MD

St. Johns County Fire Rescue



# A Story...

- 9/22/23 4:28pm
- 70 year old Kenneth Commins is sitting at his desk in his home office. S/P ablation...
- “Short of breath, dizzy.”
- 911 audio:





**Date of Service: 09/22/2023**

**Dispatch CR#: 2300052342**

**NPI: 1720071343**

**TIMES**

Injury:

PSAP:

Disp Notify: 16:29 09-22-23

Recvd: 16:29 09-22-23

Dispatch: 16:29 09-22-23

En route: 16:30 09-22-23

At scene: 16:32 09-22-23

At patient: 16:33 09-22-23

Transport: 17:11 09-22-23

At dest.: 17:23 09-22-23

Dest Tra Care: 17:24 09-22-23

In service: 17:53 09-22-23

Cancel:

- 4 minute response time
- NO bystander CPR
- EleGARD, I gel, ITD, ResQCPR → LUCAS, femoral IO and peripheral IV
- Refractory VFIB
- 12 defibrillations. 8 DSED
- Epi 1mg q10min. Amiodarone (IV) Magnesium. End tidal = 19 -37

38 minutes  
on scene

## QA METRICS

## ER Timeline

On Scene Time to  
EleGard Deployed

GOAL - LESS THAN 4 MINUTES

Total Time on Scene Before  
Transport

GOAL - 30 MINUTES OR MORE

Total Time on Scene Before  
Resuscitation Discontinued

GOAL - 30 MINUTES OR MORE

911 to EleGard Deployed

GOAL - LESS THAN 11 MINUTES

Time Off Chest

(GREATER THAN 5 SECONDS)  
GOAL - ZERO

ROSC

YES OR NO

## Care Timeline

09/22

1725

Arrived

Cardiopulmonary resuscitation procedure

1726

Code start

1728

epinephrine 1 mg

1734

epinephrine No dose recorded

1736

ssGLUC POC !

1738

amiodarone HCl 1 mg/min

1739

EPINEPHrine (Adrenalin) 5,000 mcg in dextrose 5 %... 10 mcg/min

1741

ECG 12-Lead

1753

Comprehensive metabolic panel !

Lipase

Magnesium !

Protime-INR !

APTT !

Troponin I !!

CBC and differential !

1754

etomidate 30 mg

succinylcholine chloride,succinylcholine/sod... 100 mg



Our ERs are really good at keeping patient in Heads Up bundle with LUCAS and ITD.

# In Hospital Care...

1629 – 1741 = 72 minutes in cardiac arrest

Emergent Cath Lab no  
le









# Take Home Points...

- Why do we do what we do?
- What cost for a life?
- It's all about perfusion...
- Don't give up...

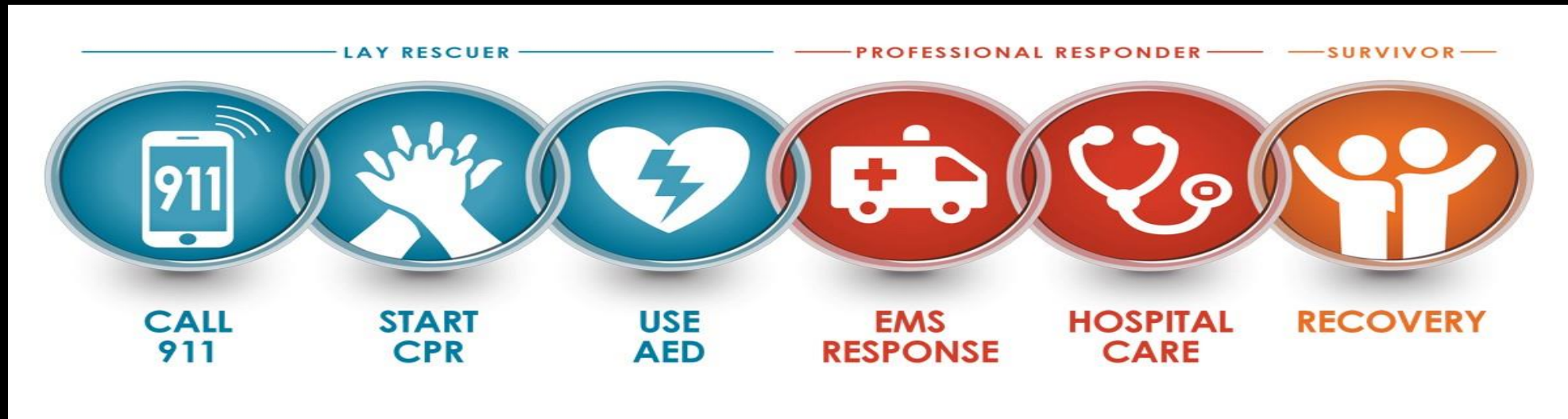


**EXCELLENCE TODAY**



**IMPROVING TOMORROW**

# **Resuscitation Awards Palm Beach County Fire Rescue Style**



**INTEGRITY • UNITY • COMPASSION • ACCOUNTABILITY • DEDICATION**



**EXCELLENCE TODAY**



**IMPROVING TOMORROW**



**To be eligible for this award the crew must adhere to the PBCFR Cardiac Arrest Patient Care Protocols, and the patient must be discharged from the hospital with a CPC score of 1 or 2**

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- **Several calls to the dispatch center**
- **Immediate response from the staff to the tennis court**
- **New Fire Station down the street**



**EXCELLENCE TODAY**



**IMPROVING TOMORROW**



- **Cliff Rizzi – Athletic Director**
- **Nicole Hymes (2)– Dispatcher**
- **Metronome and Dispatcher assisted compressions**

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- **Two Shocks from the AED by the staff at the club before Fire Rescue assumed care**

**EXCELLENCE TODAY**



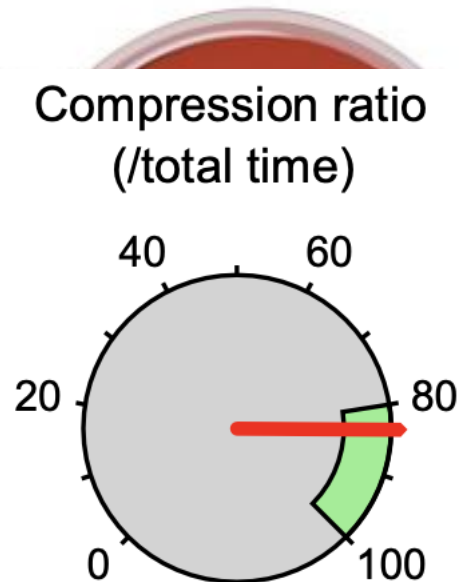
**IMPROVING TOMORROW**



- **EMS Captain Darwin Zelaya (2)**
- **Captain Tim Hoffman (3)**
- **Paramedic Jonathan Hamilton (1)**
- **Paramedic Rolando Garcia (1)**
- **Paramedic Nathaniel Torrech (1)**
  - **907 Bars from to 2021 to current**

**INTEGRITY • UNITY • COMPASSION • ACCOUNTABILITY • DEDICATION**





17:46 / 21:17 = 83 %

- **Excellent CPR with minimal interruptions**
- **2 standard shocks at 360j**
- **4 Double Sequential Defibrillations**

	Time	First Defib	Duration to First Defib
Unit OS	8:33:40	8:36:02	0:02:22

- **Ultrasound to detect cardiac motion**
- **200 mgs of Ketamine**
- **Induced Hypothermia**



**EXCELLENCE TODAY**



**IMPROVING TOMORROW**



- **ICU Nurse Madison Davis**
- **Trauma Nurse Ryan Speaker**
- **Trauma Surgeon Nir Hus**
- **Medical Director Peter Antevy**
- **Son Adam Nierow**

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**EXCELLENCE TODAY**



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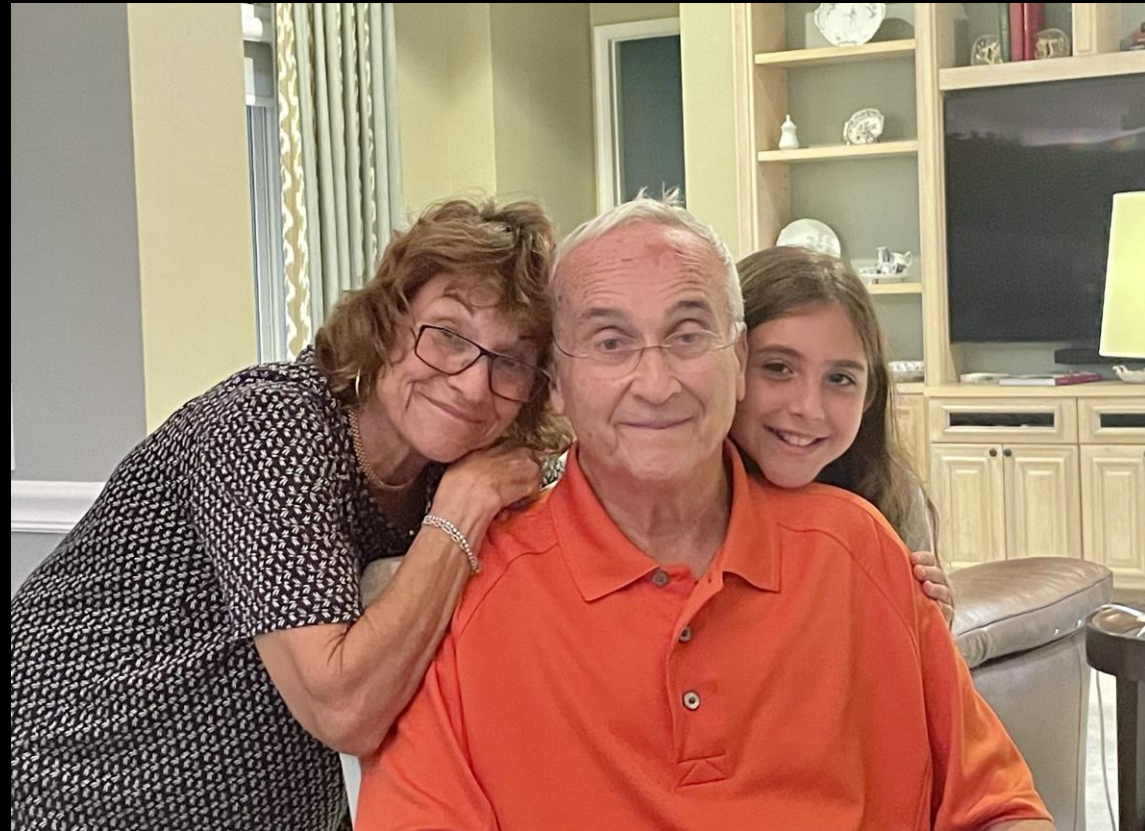
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**EXCELLENCE TODAY**



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