CPR, DOA, Choking, and Rescue Breaths

What is my role on scene?
CPR
How to Start

Make sure the environment is safe for rescuers and victim (BSI and Scene Safety)

Check for Responsiveness → “Hey, hey are you ok?” Grab shoulders and tap

CPR Indications ***Check simultaneously no more than 10 seconds

- No Breathing or only gasping (i.e. no normal breathing)
- No Pulse in 10 seconds- Carotid
Quick CPR Review - Adult

30 Compressions and 2 Breaths → Both for 1 Rescuer and 2 Rescuer

Depth of Compressions - At least 2 Inches up to 2.4 Inches

Push Hard and Fast - Rate of 100-120 Beats Per Minute

2 Hands on the Lower Half of the Sternum/Breastbone

Allow for Full Recoil Between Compressions

Limit Interruptions in Compressions for Less than 10 Seconds
Quick CPR Review - Child

30 Compressions and 2 Breaths if 1 Rescuer

15 Compressions and 2 Breaths if 2 Rescuers

Depth of Compressions - At least $\frac{1}{3}$ Diameter of Chest ~2 Inches

Push Hard and Fast - Rate of 100-120 Beats Per Minute

2 Hands on the Lower Half of the Sternum/Breastbone (1 hand if very small child)

Allow for Full Recoil Between Compressions

Limit Interruptions in Compressions for Less than 10 Seconds
Quick CPR Review - Infant

30 Compressions and 2 Breaths if 1 Rescuer

15 Compressions and 2 Breaths if 2 Rescuers

Depth of Compressions - At Least ⅓ of Chest Diameter ~1 ½ Inches

Push Hard and Fast - Rate of 100-120 Beats Per Minute

1 Rescuer: 2 Fingers in the Center of the Chest Just Below Nipple Line

2 Rescuers: 2 Thumbs - Encircling Hands in the Center of the Chest Just Below Nipple Line

Allow for Full Recoil Between Compressions

Limit Interruptions in Compressions for Less than 10 Seconds
Songs for Rate of Compressions

https://www.youtube.com/watch?v=_Vj092UgKwQ
https://www.youtube.com/watch?v=cGJ_lyFwieY
https://www.youtube.com/watch?v=Go0lh4HDtc8
Witnessed or Unwitnessed Cardiac Arrest - Adult

If you are alone- Leave the patient to call 911 and get an AED

If there are other people around, have someone call 911 and get an AED, start CPR
Witnessed Cardiac Arrest - Child

If you are alone, leave the patient to call 911 and get an AED.

If there are other people around, have someone call 911 and get an AED, begin CPR.

**Same as Adult**
Unwitnessed Cardiac Arrest- Child

If you are alone Immediately begin 2 minutes of CPR

...then leave the patient to call 911 and get an AED, return to the child and begin CPR again using the AED as soon as possible

If there are other people around, have someone get an AED and call 911, begin CPR
What CPR Classes Don’t Talk About

Oxygen with BVM (set to 15+ LPM)

Airway Adjuncts: OPA/NPA → Ideally 2 NPAs and 1 OPA

Suction

Trauma Shears: Remove All Clothing Immediately

Posturing: Muscles tensing, rigid body posture, could still be moving

Agonal Breathing: Violent breath every once in awhile

Transport on backboard on stretcher for hard surface

Ramping the Airway → We will discuss this later
Communication

Updates are extremely important (to confirm CPR or if it is not CPR)

Code 500/ Medical 500/ Confirmed CPR in Progress

Situational: Listen to who is coming, make sure ALS and backup are on the way

Make sure the location of the call is clear and easy to understand - consider sending out an attendant or bystander to direct the ambulance/backup
Role of Crew Chief: Scene Leader + Supervisor

Checking BSI/Scene Safety, checking responsiveness, initiating CPR Process

Communicating with dispatch and other agencies

Directing attendant/UPD to do Compressions (and breaths if possible)

Setting up AED, following all commands (especially making sure that everyone is clear before giving all shocks)

Directing attendant (if possible) to set up oxygen, airway adjuncts, and suction or wait until you are able to do it yourself → Work together 2 people at airway

Know the limits and abilities of your attendants (EMT? New Member? etc.)
Role of Attendants

Get to the scene (safely) ASAP, make sure to remember BSI and scene safety

If your crew chief is not there yet, and the scene is safe, initiate the CPR process by assuming the role of scene leader (check for responsiveness, direct compressions by UPD or bystanders if applicable, look for AEDs on scene in the building.. etc..) ***Listen for updates from crew chief on pager

Do hands only CPR if you do not have access to a pocket mask or BVM yet

When your crew chief shows up or if they are already there, you will do compressions, help out with breaths/ oxygen tank setup/ OPA/ Suction, and document if possible
Role of UPD/Bystanders

Direct them to do compressions (make sure to give instructions, remind them how to do CPR, and ensure adequate compressions are occurring)

Situational- if applicable bystander could help get AED from building or grab supplies from GFR car

Ask bystander to go outside and meet incoming agencies

UPD/Bystanders/Attendant who gets to scene can do hands only CPR (continuous compressions at the same rate and depth) until a BVM or pocket mask is available.
Documentation - anyone who is available

Pt. name and DOB can be obtained from UPD after the call

If possible, remember/write down the time of each shock

If possible, try to obtain a medical history/summary of events from bystanders before leaving scene

Reference Bryx or call dispatch to ask what agencies showed up after the call

Document scene description, airway opening techniques, rate of compressions, compression to breath ratio...

There is a special Cardiac Arrest Section on EMS Charts
Rotating Compressions

Rotate person doing compressions every 2 minutes OR before then if you get tired

Know your limits and don’t be afraid to speak up if you need a break

Have people ready to take over compressions when the current person is done

Goal: Have a line of people waiting to do compressions → fire fighters/GFD members who are not on call currently will show up to help
What to do once other agencies show up...

GFD, LCEMS, ALS, ALS Supervisor, GFD Chiefs, Karen Dewar, Dr. Farney, etc..

Give a quick report and listen for further instructions

Don’t forget the chain of command

Be aware that fire fighters/ambulance drivers might show up from GFD, but they will not be in control of the scene → they will want to get in the line for compressions

Once ALS intubates, they will remind you to do continuous compression and breaths ever 6-8 seconds
Why is the AED so Important?

Immediate CPR with early Defibrillation with an AED can nearly double the chance of survival because you can restore the victim’s heart rhythm back to normal.

Every minute that passes without CPR or defibrillation, the victim’s chances of survival decreases by 7-10%.

2013, AHA showed that 23% of pre-hospital Cardiac Arrest victims had shockable rhythms.

Approximately 359,400 EMS assessed Cardiac Arrest Cases in the US each year.
Where is this likely to occur on campus?

ANYWHERE at ANYTIME

Older professors or staff with medical conditions

Drug Overdose

Seizures

Athletes...
Commotio Cordis

A lethal disruption of normal heart rhythm that occurs as a result of a blow to the area directly over the heart (precardial region) at a critical time (T wave) during a regular heart cycle which causes cardiac arrest.

This can happen to anyone at any time (you do not need to have a heart condition or any other medical problems).

Baseball, Softball, Lacrosse Ball, Tennis Ball, Soccer Ball, Hockey Puck, Frisbee, Rugby Ball, Football... etc.
Return of Spontaneous Circulation (ROSC)

This could happen quickly if the patient is in a shockable heart rhythm.

It might still be necessary to give breaths and maintain airway, or they could regain consciousness completely.

Reassure the patient, treat for shock and closely monitor.

Try to ask them what happened before they went into Cardiac Arrest.

Communicate to dispatch that CPR is no longer in progress.

Rapid Transport to the hospital!
DOA
## Cardiac Arrest: Determination of Obvious Death

### EMT

### ADVANCED

### CC

### PARAMEDIC

- CPR, ALS treatment, and transport to an emergency department may be withheld in an apneic and pulseless patient that meets ANY one of the following:
  - Presence of a valid MOLST, eMOLST, or DNR indicating that no resuscitative efforts are desired by the patient
  - Patient exhibiting signs of obvious death as defined by ANY of the following:
    - Body decomposition
    - Rigor mortis
    - Dependent lividity
    - Injury not compatible with life (e.g. decapitation, burned beyond recognition, massive open or penetrating trauma to the head or chest with obvious organ destruction, etc.)
  - Patient who is pulseless and apneic with no organized cardiac activity on ECG following significant blunt or penetrating traumatic injury*
    - Cardiopulmonary arrest patients in whom the mechanism of injury does not correlate with clinical condition, suggesting a nontraumatic cause of the arrest, are excluded from this criterion
  - Patient who has been submerged for greater than one hour in any water temperature

- If a patient meets any of the aforementioned criteria, resuscitation efforts may be withheld, even if they have already been initiated. If any pads, patches, or other medical equipment have been applied, they should be left in place

- Notify law enforcement. The patient may be covered and, if allowed by law enforcement, may be moved to an adjacent private location. If there is any concern for suspicious activity, the patient should not be disturbed
Key Points/Considerations

- *Significant blunt or penetrating trauma includes meeting criteria set forth in step one, two, or three of the trauma triage criteria (Resource: Trauma Triage – CDC)
- See also “General: Advance Directives” protocol, as indicated
- If the above criteria can be met by BLS, ALS is not required for the determination of obvious death
- Copies of the MOLST form should be honored
- A copy of the DNR, MOLST, or eMOLST form should be attached to the PCR and retained by the agency whenever practical
- If a patient with a DNR (stand-alone DNR form, or as directed by a MOLST or eMOLST form) is a resident of a nursing home and expires during transport, contact the receiving staff to determine if they are willing to accept the patient back to that facility. If not, return the patient to the sending facility. A copy of the DNR, MOLST, or eMOLST must
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be attached to the PCR and retained by the agency for all transports from a sending facility to a nursing home
- The eMOLST form may be printed and affixed with electronic signatures. Electronic signatures on the eMOLST form are considered valid signatures
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Resuscitation Instructions When the Patient Has No Pulse and/or Is Not Breathing</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>Consent for Resuscitation Instructions (Section A)</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Physician Signature for Sections A and B</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Advance Directives</td>
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</tbody>
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**EMOLST**
DNR

DNR ORDER

Nonhospital Order Not to Resuscitate
(DNR Order)

Person's Name: ____________________________

Date of Birth: ____________________________

Do not resuscitate the person named above.

*Physician's or Nurse Practitioner's Signature: ____________________________

Print Name: ____________________________

License Number: ____________________________

Date: ____________________________

It is the responsibility of the physician or nurse practitioner to determine, at least every 90 days, whether this order continues to be appropriate, and to indicate this by a note in the person's medical chart. The issuance of a new form is NOT required, and under the law this order should be considered valid unless it is known that it has been revoked. This order remains valid and must be followed, even if it has not been reviewed within the 90-day period.

*For individuals with an Intellectual or Developmental Disability (IDD), the non-hospital DNR must be signed by a physician. For individuals with an IDD who do not have capacity and do not have a health care proxy, the physician must ensure compliance with SCPA Section 1750-b.

DNR 329 (12/18)
Body Decomposition

Rigor Mortis- Stiffening of the muscles and joints 1 - 4 days after death

Dependent Lividity- discoloration of the skin due to pooling blood, can begin 2 - 4 hours after death
Choking
Choking

As long as the patient is responsive and choking while making noises, encourage them to keep coughing on their own.

If the patient can no longer cough/speak/make noises, but is still choking, with permission, perform the Heimlich Maneuver until they go unresponsive or the object comes out.
Choking Responsive

Child: crouch down and do the same steps as an adult choking

Bariatric Patient: frontal abdominal thrusts with the patient standing with their back against a firm, flat, object
Choking Unresponsive

If they become unresponsive, call a Code 500, set up AED, and follow prompts.

Begin chest compressions and check for the object after 30 compressions.

If you can see object, try to perform a finger sweep without pushing it back any further. Do NOT perform a blind finger sweep!

Then attempt to give 2 breaths via BVM or pocket mask.

Repeat process until breaths are successful.
Choking Unresponsive

Once breaths are successful in an unresponsive choking patient, check pulse.

If pulse is present, do rescue breaths every 5-6 seconds, until patient becomes responsive or pt. Is transported.

If breaths stop going in or pulse is lost, resume CPR.

**BVM and oxygen tank can be set up, suction could also be used.**
What is my role?

Crew Chief: Direct strongest person to do heimlich maneuver or supervise CPR and rescue breaths as already mentioned, communicate with other agencies and dispatch

Attendant/UPD: heimlich maneuver, CPR, oxygen tank set-up → Don’t wait for your crew chief to arrive → assume leadership role on scene
Rescue Breaths
Rescue Breathing

It patient has a pulse but is not breathing, begin giving rescue breaths with a pocket mask until an airway adjunct can be inserted and a BVM with Oxygen are set up.

Give breaths every 5-6 seconds, check for chest rise, check pulses regularly.

If patient loses pulse, begin CPR.

Have AED nearby.
Why aren’t they breathing?

Consider possible reasons for why the person has a pulse but is no longer breathing...

Choking

Opioid Overdose (check pupils)

Talk to bystanders, looking around the scene for clues
Airway Tips from Dr. Farney

1. Bring in all necessary equipment and check to make sure ALS is on the way
2. Assess the Airway
3. Open the airway: Head Tilt/Chin Lift or Jaw Thrust Maneuver
4. Position the airway → Ramping
5. Insert airway adjunct: OPA, NPA
6. BVM
7. Set up Oxygen and Suction
8. Monitor SPO2, Skin, Chest Rise, Mental Status and reassess
How to Properly Assess the Airway

1. Look externally: beard, teeth, obese, amount of work per breath/are they breathing
2. Evaluate 3, 3, 2
3. Mallampati (good or bad)
4. Obstruction: obesity, epiglottic inflammation, swelling, food, tongue, etc.
5. Test neck mobility if no spinal precautions are in place
6. O2 Saturation
Ramping
What are the three most important things for EMS during cardiac arrest

1. Effective Compressions
2. Early defibrillation and rhythm monitoring
3. AIRWAY
What to do after a call like this

GFR has resources to help our members cope

- Critical Incident Stress Debrief (from Livingston County)
- Meeting with Executive Officers
- Short Term Debrief
- Long Term Debrief
- Lauderdale Health Center Counseling
- Other Services for the Squad
GFR Media Policy

DO NOT SPEAK TO ANY MEDIA SOURCE AFTER AN INCIDENT ON CAMPUS

DO NOT SPREAD RUMORS OR BREAK HIPAA WHILE TALKING TO ANYONE

Executive Officers will be the only ones to speak, and we will have no comment

We will work closely with the school and UPD moving forward
Even though these types of incidents are not GFR’s usual calls, we always need to be prepared to respond to any situation.

If you feel uncomfortable responding to any call or out of practice with your skills, please see an executive officer after this training for an informal review/discussion to prepare you for the future.
CPR Video

https://www.youtube.com/watch?v=w32PUDL2lb8

Stop at 5:30
After the training

Bring in AED, Suction, OPA/NPA, BVM, Oxygen Tank, Tubing, Pocket Mask for people to look at after the training is done