



# Fact or Fiction? Emergency Department Edition

October 2<sup>nd</sup>, 2024



# Topics of Discussion

What is Emergency  
Medicine?

The role of an Emergency  
Department Registered  
Nurse

Fact or Fiction?

Q & A



## Disclaimer

Please be advised that there will be various images and videos utilized throughout this presentation which depict adverse medical events, both real and fictional.

# About Us

**AIDET:** acronym used by Bayhealth team members in all interactions with patients, guests and peers.

- **Acknowledge:** greet the patient by name
- **Introduce:** introduce yourself with your name, skill set, professional certification and experience
- **Duration:** give an accurate time expectation
- **Explanation:** explain step-by-step what to expect next
- **Thank You:** thank the patient and/or family



# What is Emergency Medicine?

“The practice of emergency medicine includes the initial evaluation, diagnosis, treatment, coordination of care among multiple clinicians or community resources, and disposition of any patient requiring expeditious medical, surgical, or psychiatric care” – American College of Emergency Physicians (2021).



In short...

...we see it all!

# Our Role in Emergency Medicine

As nurses, we work alongside the medical professionals to assess, diagnose and treat patients.

Expertise as an Emergency Room Registered Nurse (RN) comes from foundational education at a college or university, followed by experience and time working bedside in the Emergency Department.



# Emergency Department Roles

## ED Physician / APC

- Assessment
- Ordering of Interventions
- Higher Level Treatments
- Medical Diagnosis
- Consults
- Disposition

## ED Nursing

- Triage
- Nursing Assessment
- Completion of orders
- Direct patient care
- Discharge / Admit / Transfer

# Body System Related Emergencies

Cardiac

Neurological

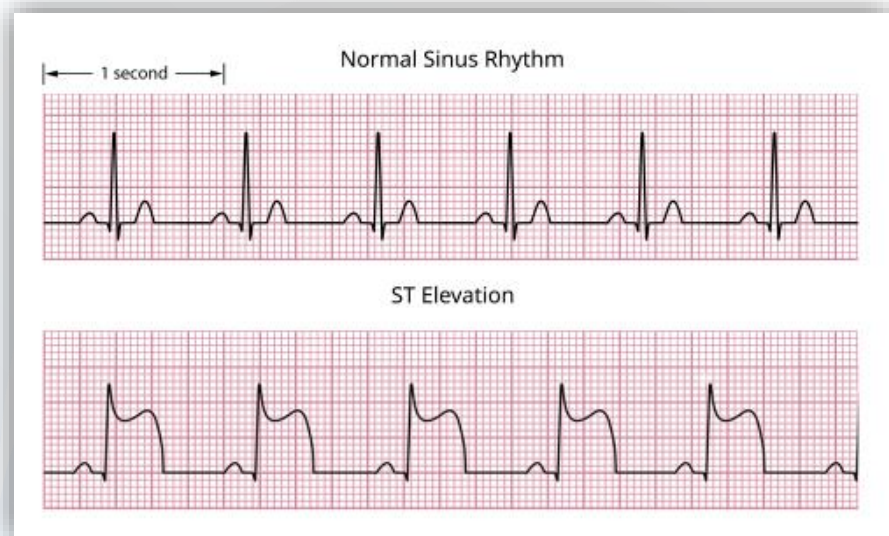
Trauma

Respiratory



# Cardiac Emergencies

## Myocardial Infarction



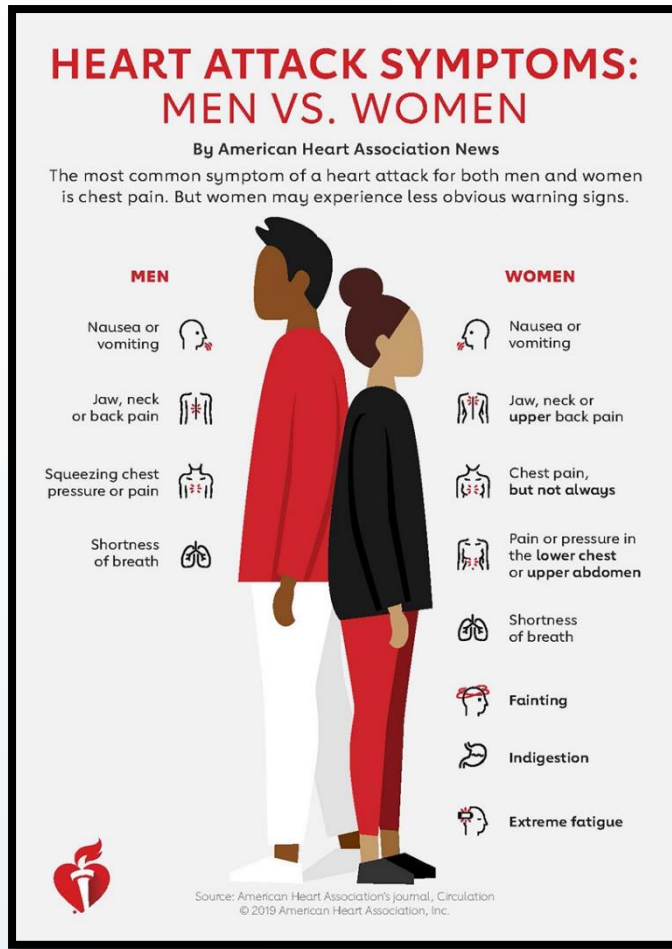
(EBSCO, 2021)

### What is a Myocardial Infarction?

- Also known as a “Heart Attack”
- There are two types of heart attacks, Non-STEMI and STEMI
- The more emergent of the two is a STEMI
- ‘ST-elevation myocardial infarction’ is characterized by symptoms of myocardial ischemia (cardiac tissue death) with persistent elevation of the ST segment and release of cardiac biomarker, Troponin

# Cardiac Emergencies

## Myocardial Infarction



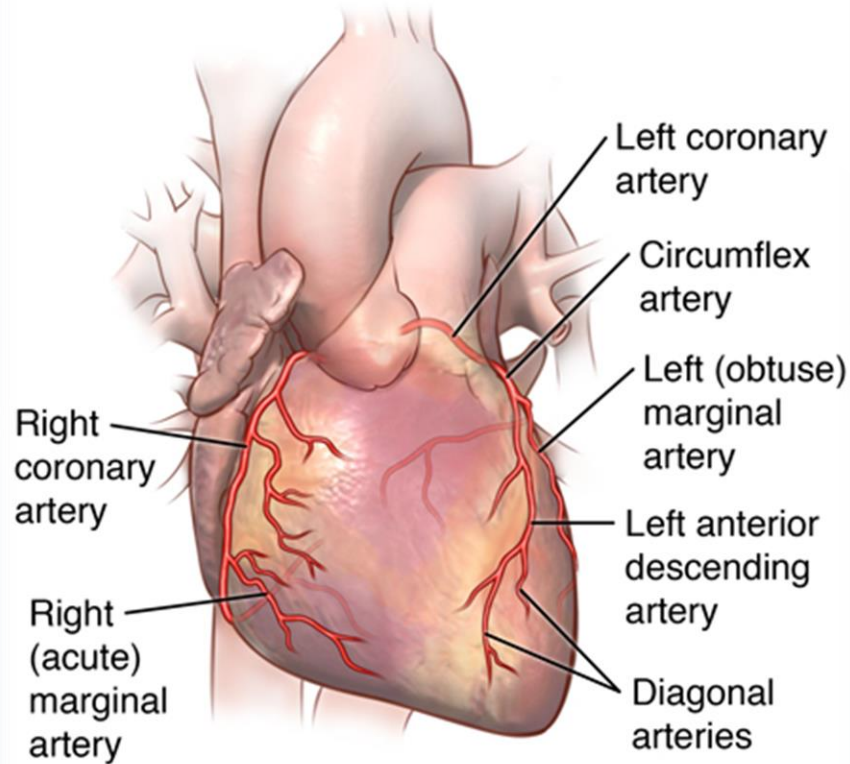
### What does a Heart Attack look like?

- Chest pain/pressure that may radiate to the back, jaw, left or right arm, and/or shoulders
- Palpitations/arrhythmias
- Dyspnea
- Diaphoresis
- Nausea and vomiting
- Fatigue and/or weakness
- Pallor or cyanosis
- Anxiety, restlessness, and apprehension

# Cardiac Emergencies

## Myocardial Infarction

Coronary arteries of the heart



(Saint Lukes, n.d.)

### What is a Myocardial Infarction?

- ST-elevation myocardial infarction is most commonly caused by a ruptured atherosclerotic plaque that results in total occlusion of the coronary artery by a blood clot
- Interventions include medication and cardiac catheterization

# Cardiac Emergencies

## Cardiac Arrest

### What is a Cardiac Arrest?

- “Cardiac arrest means that the heart suddenly stops beating. It is due to a problem with the heart's electrical system. It needs emergency treatment. Without fast care, the person can quickly die” (Cardiac 2024)
- Cardiac arrest is not the same as a heart attack

**WHAT IS CARDIAC ARREST?**


**CARDIAC ARREST** occurs when the heart malfunctions and stops beating unexpectedly.

Cardiac arrest is triggered by an electrical malfunction in the heart that causes an irregular heartbeat (arrhythmia). With its pumping action disrupted, the heart cannot pump blood to the brain, lungs and other organs.

**WHAT HAPPENS**

Seconds later, a person becomes unresponsive, is not breathing or is only gasping. **Death occurs quickly if the person does not receive immediate CPR.**

**WHAT TO DO**

 A person's chance of surviving cardiac arrest can be doubled or tripled if CPR is provided immediately. First, call your local emergency number and start CPR right away. Then, if an Automated External Defibrillator (AED) is available, use it as soon as possible. If two people are available to help, one should begin CPR immediately while the other calls your local emergency number and finds an AED—there is a 10% drop in survival each minute, which is why CPR is so important. EMS staff are also trained to revive someone whose heart has stopped.

**CARDIAC ARREST is a LEADING CAUSE OF DEATH.**

Cardiac arrest affects thousands of people annually with about 75% of them occurring in the home.

**WHAT IS A HEART ATTACK?**


**A HEART ATTACK** occurs when blood flow to the heart is blocked.


A blocked artery prevents oxygen-rich blood from reaching a section of the heart. If the blocked artery is not reopened quickly, the part of the heart normally nourished by that artery begins to die.

**WHAT HAPPENS**

Symptoms of a heart attack may be immediate and may include intense discomfort in the chest or other areas of the upper body, shortness of breath, cold sweats, and/or nausea/vomiting. More often, though, symptoms start slowly and persist for hours, days or weeks before a heart attack. Unlike with cardiac arrest, the heart usually does not stop beating during a heart attack. **The longer the person goes without treatment, the greater the damage.**

**WHAT TO DO**

 Even if you're not sure it's a heart attack, call your local emergency number. Every minute matters! It's best to call your local emergency number to get to the emergency room right away. Emergency medical services (EMS) staff can begin treatment when they arrive. Patients with chest pain who arrive by ambulance usually receive faster treatment at the hospital, too.

**WHAT IS THE LINK?** 

Most heart attacks do not lead to cardiac arrest. But when cardiac arrest occurs, heart attack is a common cause. Other conditions may also disrupt the heart's rhythm and lead to cardiac arrest.

**Fast action can save lives.**

**Arrhythmia**

**Blocked Artery**

**Cardiac arrest is an "ELECTRICAL" problem.**

**A heart attack is a "CIRCULATION" problem.**

**The heart attack symptoms in women can be different than men (shortness of breath, nausea/vomiting, and back or jaw pain).**

# Cardiac Emergencies

## Cardiac Arrest

**Resuscitation Triangle Roles**

**Compressor**

- Assesses the patient
- Does 5 cycles of chest compressions
- Alternates with AED/Monitor/Defibrillator every 5 cycles or 2 minutes (or earlier if signs of fatigue set in)

**AED/Monitor/Defibrillator**

- Brings and operates the AED/monitor/defibrillator
- Alternates with Compressor every 5 cycles or 2 minutes (or earlier if signs of fatigue set in), ideally during rhythm analysis
- If a monitor is present, places it in a position where it can be seen by the Team Leader (and most of the team)

**Airway**

- Opens the airway
- Provides bag-mask ventilation
- Inserts airway adjuncts as appropriate

**The team owns the code. No team member leaves the triangle except to protect his or her safety.**

**Positions for 6-Person High-Performance Teams\***

**Leadership Roles**

**Team Leader**

- Every resuscitation team must have a defined leader
- Assigns roles to team members
- Makes treatment decisions
- Provides feedback to the rest of the team as needed
- Assumes responsibility for roles not assigned

**IV/IO/Medications**

- An ACLS provider role
- Initiates IV/IO access
- Administers medications

**Timer/Recorder**

- Records the time of interventions and medications (and announces when these are next due)
- Records the frequency and duration of interruptions in compressions
- Communicates these to the Team Leader (and the rest of the team)

\*This is a suggested team formation. Roles may be adapted to local protocol.


## What is a Cardiac Arrest?

- For patients experiencing cardiopulmonary arrest, prompt and skilled resuscitation is critical
- During a resuscitation attempt, team members assemble and roles are delineated

(American Medical, 2024)

# Neurological Emergencies





## Stroke



American Stroke Association  
A Division of the American Heart Association  
Together to End Stroke®

**SPOT A STROKE™**

**F.A.S.T.**

-  **FACE** Drooping
-  **ARM** Weakness
-  **SPEECH** Difficulty
-  **TIME** to Call 911

Learn more at [stroke.org](https://www.stroke.org)

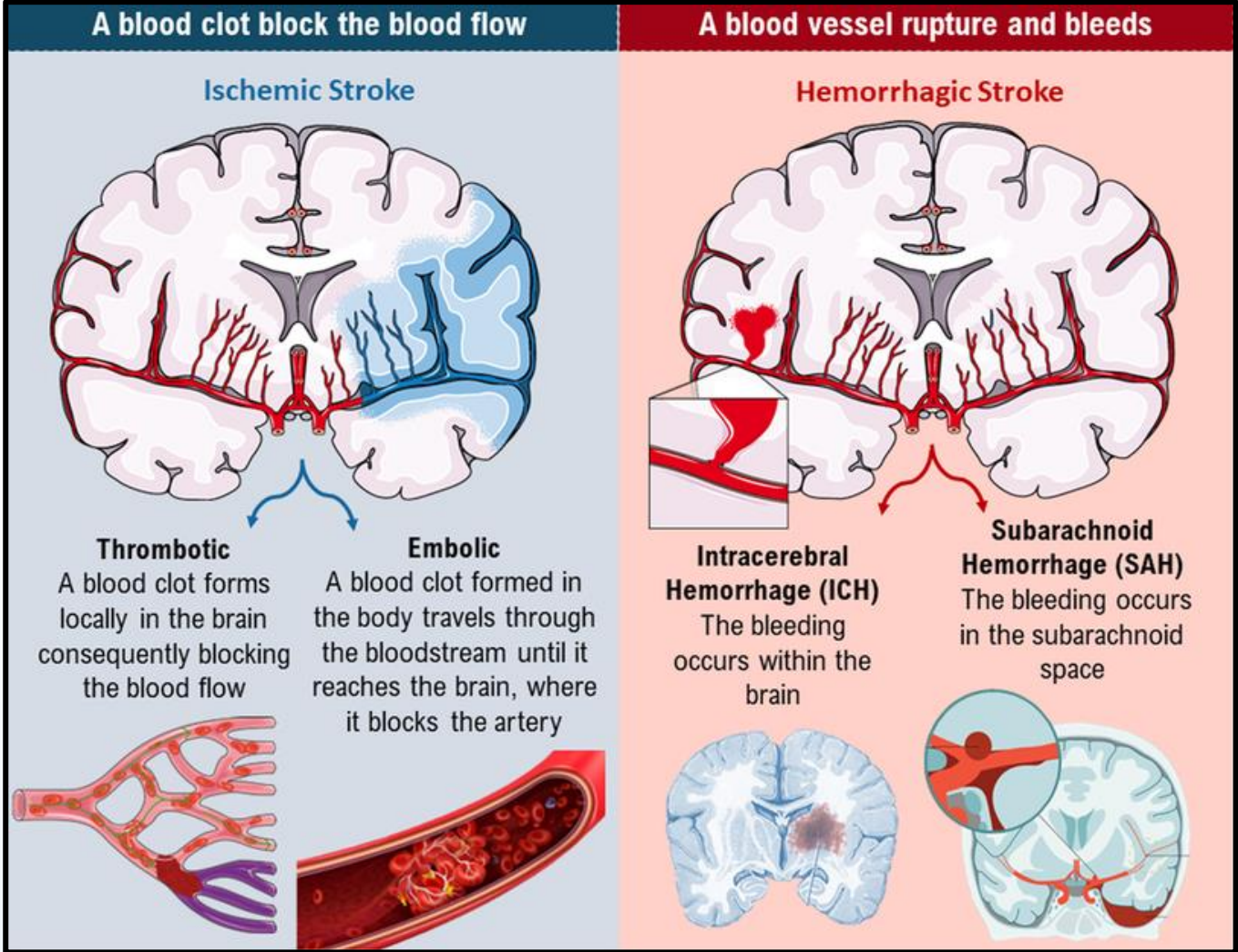
(American Stroke, 2020)

### What is a Stroke?

- “Cerebrovascular Accident” = “CVA” = “Brain Attack”
- Occurs when blood supply to an area of the brain is stopped
- Early recognition and treatment is important; the longer the patient experiences decreased blood flow to the brain, the more brain cells die

# Neurological Emergencies

## Stroke



# Neurological Emergencies

## Ischemic Stroke



**BEFORE TPA**  
Blocked Middle Cerebral Artery

**AFTER TPA**  
Open Middle Cerebral Artery

(Louisana, 2016)

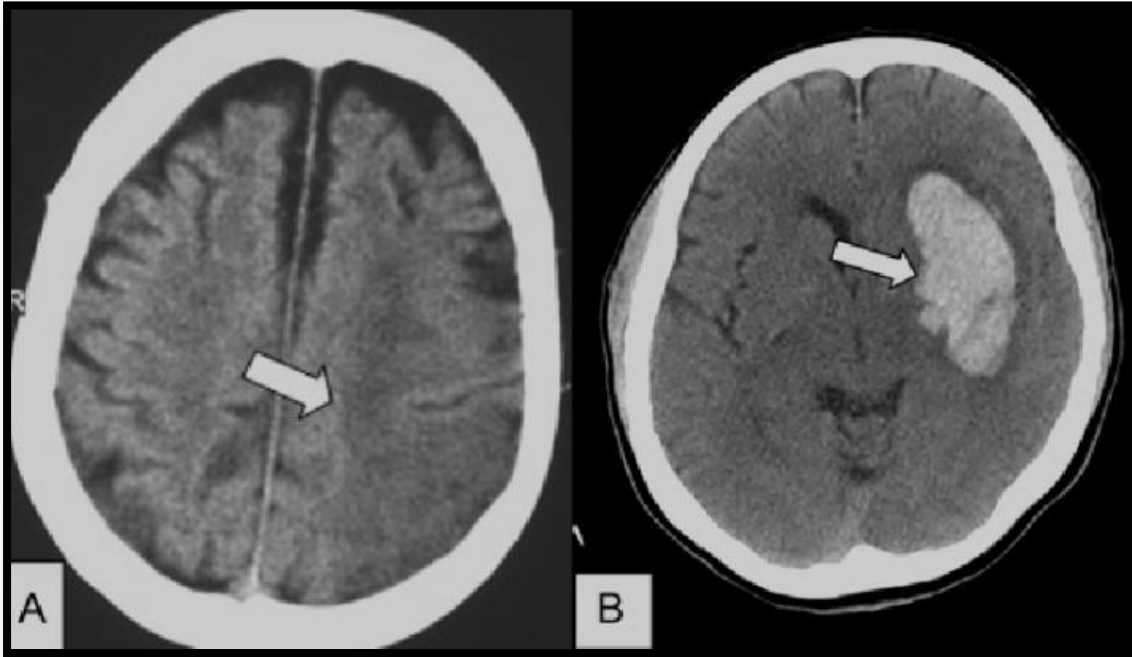
### What is an Ischemic Stroke?

- “Occurs when the blood supply to a cerebral artery is blocked by a thrombus, embolus or stenosis” (Ischemic 2024)
- If brought to a Stroke capable facility and diagnosed within 4.5 hours of initial symptom onset, the patient can be treated with a thrombolytic, also known as a ‘clot buster’



# Neurological Emergencies

## Hemorrhagic Stroke



### What is a Hemorrhagic Stroke?

- “A neurological injury caused by spontaneous bleeding from intracranial blood vessels”  
(Hemorrhagic 2024)

# Trauma Emergencies

## MVC



(Health, 2023)

## What is a Motor Vehicle Collision?

- An unintended event which causes injury and damage to a motor vehicle in transport
- Severity is defined by the mechanism of injury, which tells the manner in which the human body is effected by the trauma and forces of the collision

# Trauma Emergencies

## MVC

Primary Survey [A-G] "When you mess, reassess"	
<b>A** Alertness (A<sub>1</sub>) and Airway (A<sub>2</sub>)</b>	<b>** Double-starred items must be completed IN ORDER prior to moving to the next step.</b> <b>* Single-starred items are essential steps and must be performed, but sequence is not critical.</b>
<ul style="list-style-type: none"><li>• Maintain cervical spinal stabilization</li><li>• AVPU (Alert, Verbal, Pain, Unresponsive)</li><li>• Assess airway patency (at least FOUR)</li></ul>	
<b>B** Breathing and Ventilation</b>	
<ul style="list-style-type: none"><li>• Assess breathing effectiveness (at least FOUR)</li></ul>	
<b>C** Circulation and Control of Hemorrhage</b>	
<ul style="list-style-type: none"><li>• Assess pulse and skin color/temperature/moisture</li><li>• Anticipate goal-directed therapy for shock</li></ul>	
<b>D** Disability (Neurologic Status)</b>	
<ul style="list-style-type: none"><li>• Glasgow Coma Scale</li><li>• Assess pupils</li><li>• Obtain blood glucose with any altered mental status*</li></ul>	
<b>E** Exposure (E<sub>1</sub>) and Environmental Control (E<sub>2</sub>)</b>	
<ul style="list-style-type: none"><li>• Remove clothing, provide warmth</li></ul>	
<b>F Full Set of Vital Signs (F<sub>1</sub>) and Family Presence (F<sub>2</sub>)</b>	
<b>G Get Adjuncts (G<sub>1</sub>) and Give Comfort (G<sub>2</sub>) [L-P]</b>	
<b>L</b> - Labs	
<b>M</b> - Monitor	
<b>N</b> - Naso- or orogastric tube	
<b>O</b> - Oxygenation and capnography	
<b>P*</b> - Pain assessment AND management	
Reevaluation for Transfer to Trauma Center or Preparation for Definitive Treatment	
Secondary Survey [HI]	
<b>H History (H<sub>1</sub>) and Head-to-Toe (H<sub>2</sub>) Exam</b>	
<ul style="list-style-type: none"><li>• History (H<sub>1</sub>) - Prehospital report, SAMPLE</li><li>• Head-to-Toe Assessment (H<sub>2</sub>)</li></ul>	
<b>I* Inspect Posterior Surfaces</b>	
<ul style="list-style-type: none"><li>• Unless contraindicated by suspected spine or pelvic injury, turn, inspect, and palpate</li></ul>	

## What is a Trauma Assessment?

- Following an alphabetical mnemonic, we investigate the patient's current condition from most important to least important

(TNCC, 2024)

# Trauma Emergencies

## Penetrating Wounds



(Hills, 2016)

### What are Penetrating Wounds?

- “Penetrating trauma occurs when a foreign object pierces the skin and enters the body, creating a wound”  
(Lotfollahzadeh & Burns, 2023)
- Most common causes of penetrating wounds are gun shots or stabbings
- Depending on the type, location and depth of the wound determines the severity and treatment

# Respiratory Emergencies

## Respiratory Distress



(Roland, 2015)

### What is Respiratory Distress?

- “Occurs when a person is working hard to breathe or not getting enough oxygen” (EBSCO, 2024)
- Early recognition and intervention is critical in order to restore ventilation and oxygenation
- Interventions include oxygen therapy and medication

# Respiratory Emergencies

## Respiratory Arrest



(Mazer, 2014)

### What is Respiratory Arrest?

- Disruption of pulmonary gas exchange
- When the vital organs do not receive proper perfusion, the patient will go into cardiopulmonary arrest and require resuscitation measures
- Typically caused by airway obstruction, decreased respiratory effort or respiratory muscle weakness



## Fact or Fiction?

We are going to show videos and pictures of how Emergency Medicine is depicted in the media.

See if you can guess whether the media is realistic or if you can identify why it is not!



# Fact or Fiction?



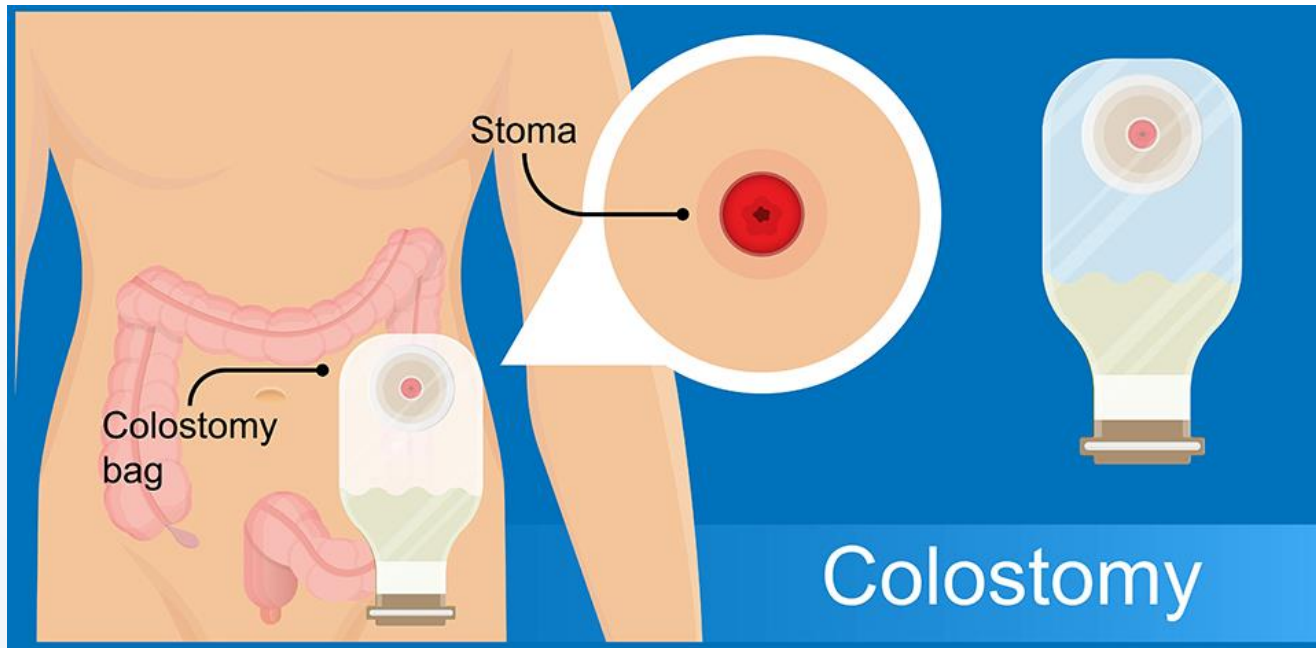


## Fact or Fiction?

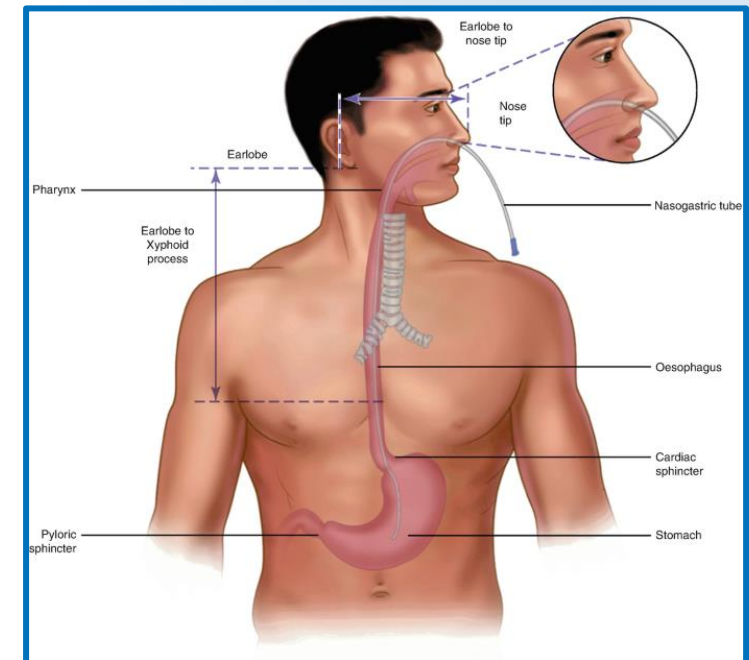
# Fiction!

- While the depiction of the colostomy bag was accurate, it is not realistic that a paramedic would intubate (insert breathing tube) a patient with a colostomy bag that is ‘backing up.’
- A colostomy is a “surgical opening of the colon to the abdominal wall, created for the discharge of stool” (EBSCO, 2024).
  - When a colostomy bag is full and the stool is unable to evacuate, the patient may experience a blockage, which could result in any food or liquid that is ingested to be unable to pass
  - This could lead to the patient vomiting their stomach contents
- Any time a patient vomits, there is a risk for aspiration, which means the patient could breathe the emesis (vomit) into their lungs; however, we would never put a breathing tube for this risk
  - In the ED, we would position the patient to protect their airway, such as sitting up or laying on their side and then attempt to decompress the stomach with a nasogastric tube (NG tube)

# Reality



(UNC, 2023)



(Nguyen, 2022)

- While the esophagus and trachea are very similar in anatomy and location, the esophagus is what connects the mouth to the stomach, then the stomach connects to the intestines and then to the patient's colostomy (gastrointestinal tract)
  - This is where we would insert a nasogastric tube from nose to stomach to then suction out gastric content
- The trachea connects the patient's mouth to their lungs, which is a separate body system (respiratory)

# Fact or Fiction?



(Rhimes, 2007)

## Fact or Fiction?

# Fiction!

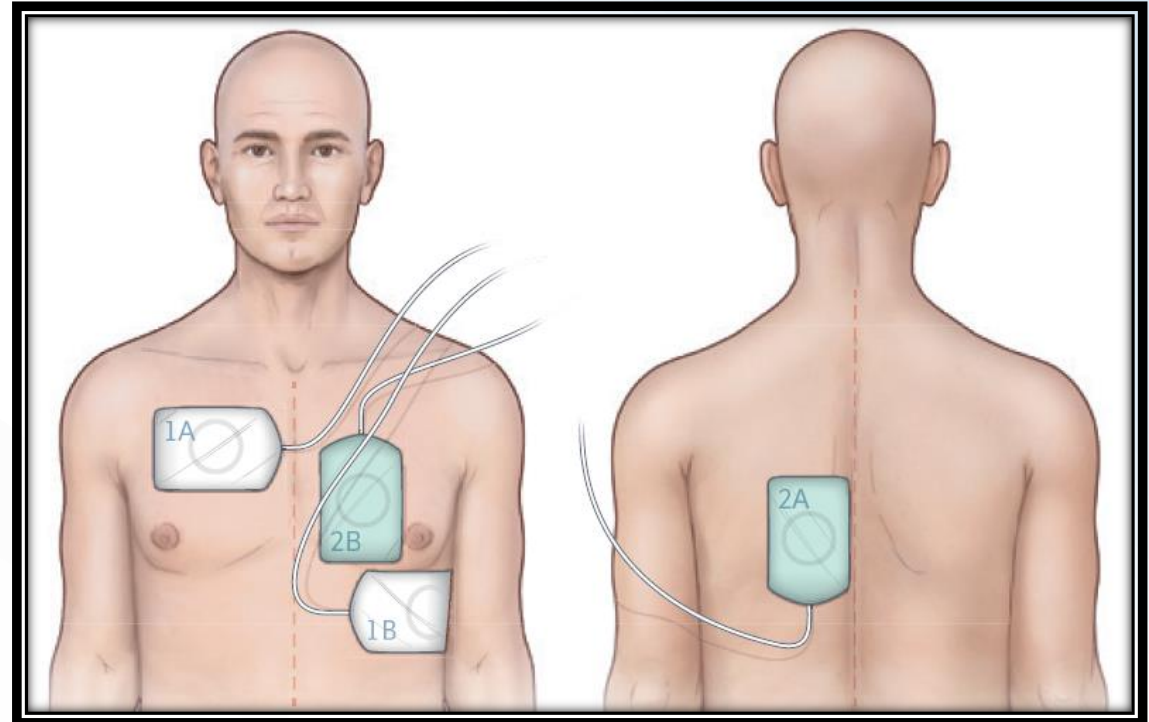
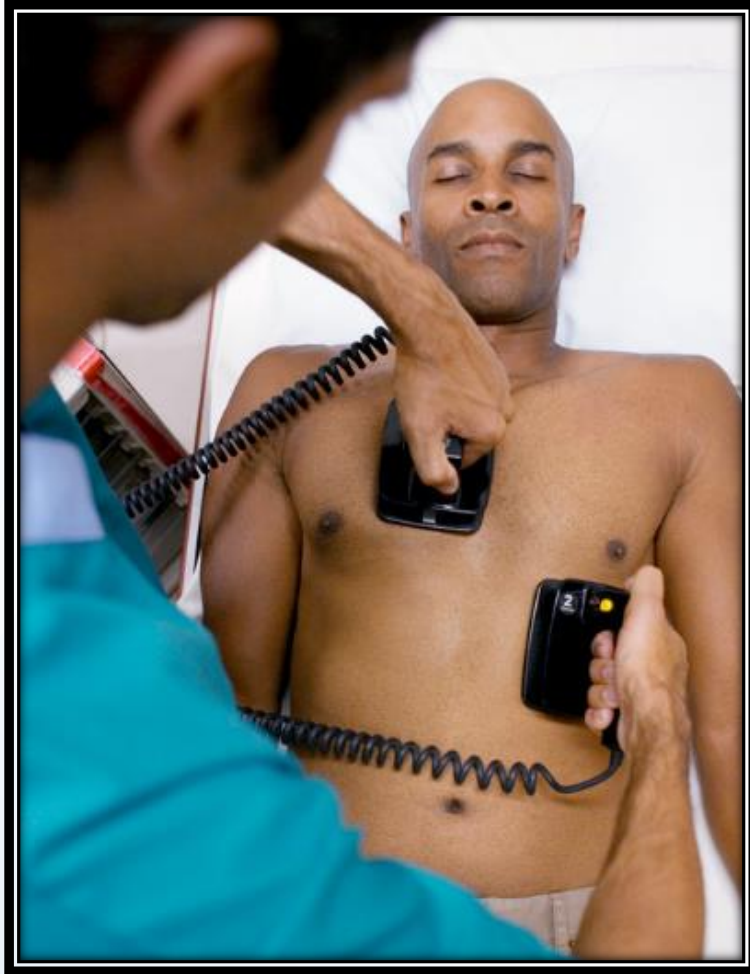
This patient is being shocked using a defibrillator; can you tell what is wrong about this placement?



(Rhimes, 2007)

- The paddles are on the patient's collarbones, rather than on their chest in order to deliver the shock appropriately to the heart
  - We utilize defibrillation when a patient's heart rhythm is chaotic and unorganized and requires a shock of electricity to 'reset' to a normal rhythm

# Reality



(St John, 2020)

We typically utilize pads now instead of paddles and the shock can be delivered to two locations

1. Anterior and lateral (on the chest/abdomen)
2. Anterior and posterior (chest and back)

# Fact or Fiction?



(Brandt, 2016)

# Fact or Fiction?

# Fiction!

- This patient had a Do Not Resuscitate (DNR) order
- This is a legally binding document that the patient completed in which she stated her wishes in the case that she were to go into cardiopulmonary arrest
- This physician ignored the DNR and provided resuscitation to a patient who explicitly did not want this to be done, which is a violation of her advanced health care directives
- If this were a real life scenario, this physician could be liable and face a medical malpractice suit

DELAWARE MEDICAL ORDERS FOR SCOPE OF TREATMENT (DMOST)			
<ul style="list-style-type: none"><li>• FIRST, follow the orders below. THEN contact physician or other health-care practitioner for further orders, if indicated.</li><li>• The DMOST form is voluntary and is to be used by a patient with serious illness or frailty whose health care practitioner would not be surprised if the patient died within next year.</li><li>• Any section not completed requires providing the patient with the full treatment described in that section.</li><li>• Always provide comfort measures, regardless of the level of treatment chosen.</li><li>• The Patient or the Authorized Representative has been given a plain-language explanation of the DMOST form.</li><li>• The DMOST form must accompany the patient at all times. It is valid in every health care setting in Delaware.</li></ul>			
Print Patient's Name (last, first, middle)		Date of Birth	last four digits of SSN Gender
Patient's Address		Phone Number	
<b>A</b>	<b>Goals of Care</b> (see reverse for instructions. This section does not constitute a medical order.)		
<b>B</b>	<b>Cardiopulmonary Resuscitation (CPR)</b> <i>Patient has no pulse and/or is not breathing</i> <input type="checkbox"/> Attempt resuscitation/CPR. <input type="checkbox"/> Do not attempt resuscitation/DNAR.		
<b>C</b>	<b>Medical Interventions:</b> <i>Patient is breathing and/or has a pulse.</i> <input type="checkbox"/> <b>Full Treatment:</b> Use all appropriate medical and surgical interventions, including intubation and mechanical ventilation in an intensive care setting, if indicated to support life. Transfer to a hospital, if necessary. <input type="checkbox"/> <b>Limited Treatment:</b> Use appropriate medical treatment, such as antibiotics and IV fluids, as indicated. May use oxygen and noninvasive positive airway pressure. Generally avoid intensive care. <input type="checkbox"/> Transfer to hospital for medical interventions. <input type="checkbox"/> Transfer to hospital only if comfort needs cannot be met in current setting. <input type="checkbox"/> <b>Treatment of Symptoms Only/Comfort Measures:</b> Use any medications, including pain medication, by any route, positioning, wound care, and other measures to keep clean, warm, dry, and comfortable. Use oxygen, suctioning, and manual treatment of airway obstruction as needed for comfort. Use antibiotics only to promote comfort. Transfer only if comfort needs cannot be met in current location. <input type="checkbox"/> <b>Other Orders:</b>		
<b>D</b>	<b>Artificially Administered Fluids and Nutrition:</b> <i>Always offer food/fluids by mouth if feasible and desired.</i> <input type="checkbox"/> Long-term artificial nutrition <input type="checkbox"/> Defined trial period of artificial nutrition: Length of trial: _____ Goal: _____ <input type="checkbox"/> No artificial nutrition <input type="checkbox"/> hydration only <input type="checkbox"/> none (check one box)		
<b>E</b>	<b>Orders Discussed With:</b> <input type="checkbox"/> Patient _____ ph.# _____ <input type="checkbox"/> Guardian <input type="checkbox"/> Surrogate (per DE Surrogacy Statute) _____ Printed Name & phone number <input type="checkbox"/> Other <input type="checkbox"/> Agent under healthcare POA/or AHCD _____ <input type="checkbox"/> Parent of a minor _____ Signature _____		
Print Name of Authorized Representative		Relation to Patient	Address Phone #
If I lose capacity, my Authorized Representative		may	change or void this DMOST
		may not	Patient Signature
<b>F</b>	<b>SIGNATURES:</b> Patient/Authorized Representative/Parent (mandatory) <i>I have discussed this information with my Physician / APRN / PA</i>		Physician / APRN / PA
Signature	Date	Signature	Date Time
If authorized representative signs, the medical record must document that a physician has determined the patient's incapacity & the authorized representative's authority, in accordance with DE law.		Print Name	
		Print Address	
		License Number	Phone #

(State of Delaware, 2017)

# Fact or Fiction?



(Tales, 2019)



Reality

# Fiction!



(Tales, 2019)



(Davis, 2023)

- The image to the left shows a yankuer, which is a suction catheter, being utilized as an endotracheal tube
- The image to the right shows a real endotracheal tube with the proper tube holder

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Questions?

Thank you!

