



Airplane Emergencies: Is There a Doctor On Board?

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OBJECTIVES

Introduction

Onboard materials

Approach to a medical emergency

Commonly occurring medical emergencies

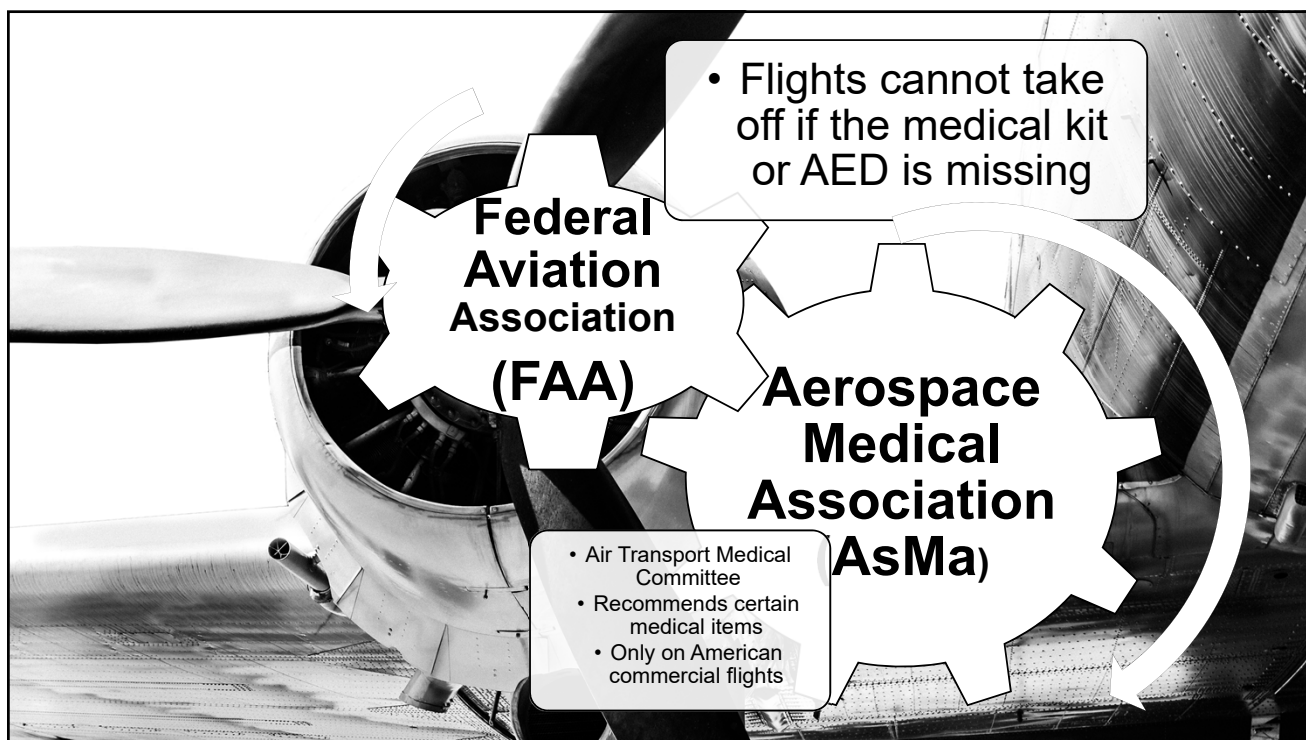
Legal

IN-FLIGHT EMERGENCIES

- 1 in 604 flights
- 44,000 worldwide annually
- BLS trained employees



Flight Attendants	BLS Trained Every 2 years
Automatic External Defibrillator (AED)	A plane 75,000 lbs. or more must have an AED
International Air Transit Association (IATA)	Does not regulate the contents of the medical kit Centers are staffed with physicians



ONBOARD SUPPLIES



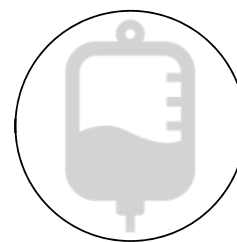
Assessment

- Blood pressure cuff
- Stethoscope
- Gloves
- Masks
- Thermometer



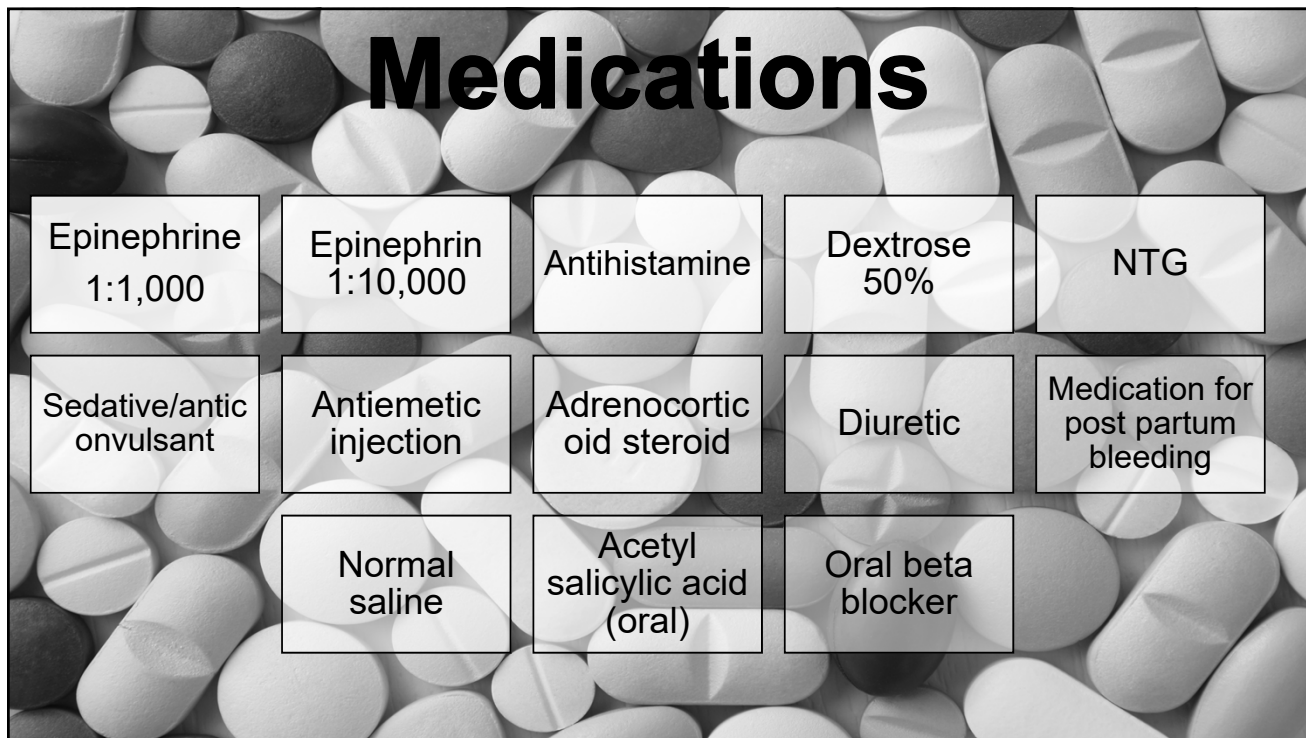
Airway and Breathing


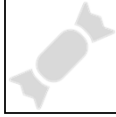







- Oral airways
- BVM (3 sizes)
- CPR masks (3 sizes)



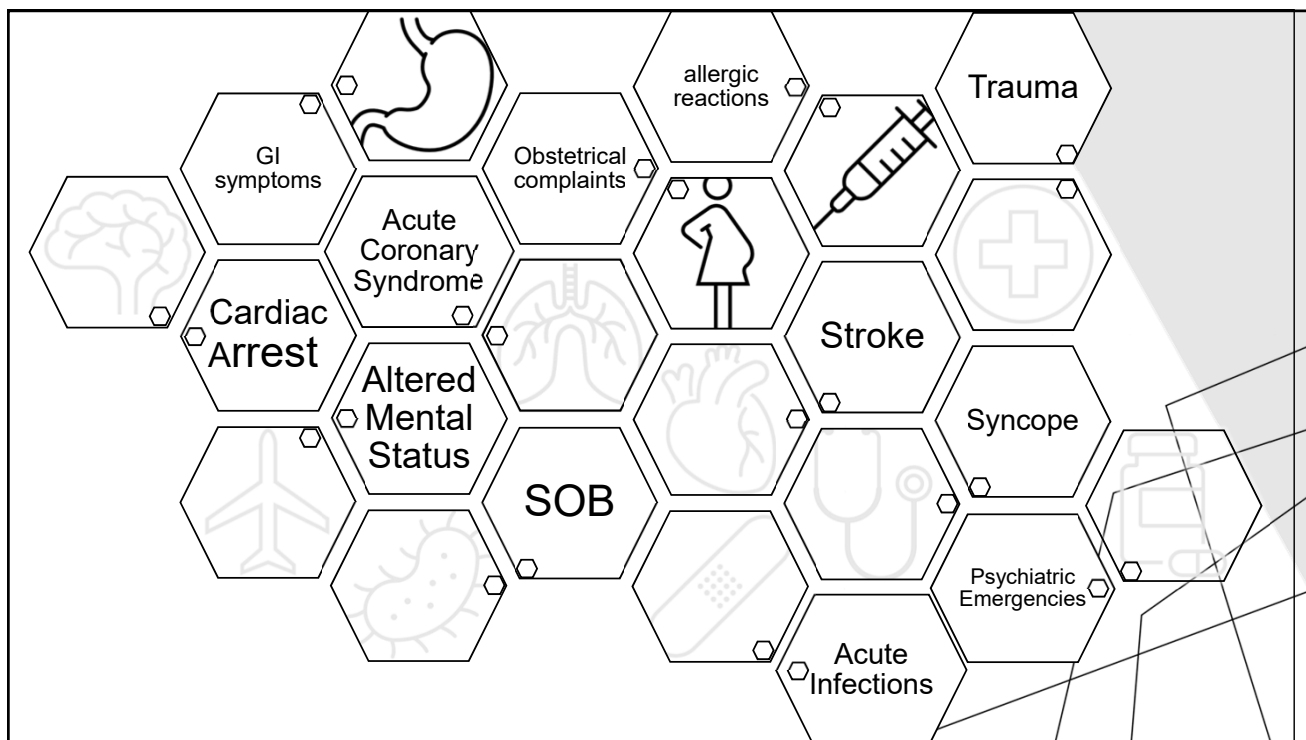
IV access

- IV kit
- 500 cc of NS
- Needles/syringes
- Tubing
- Tourniquet
- Tape
- Antiseptic wipes



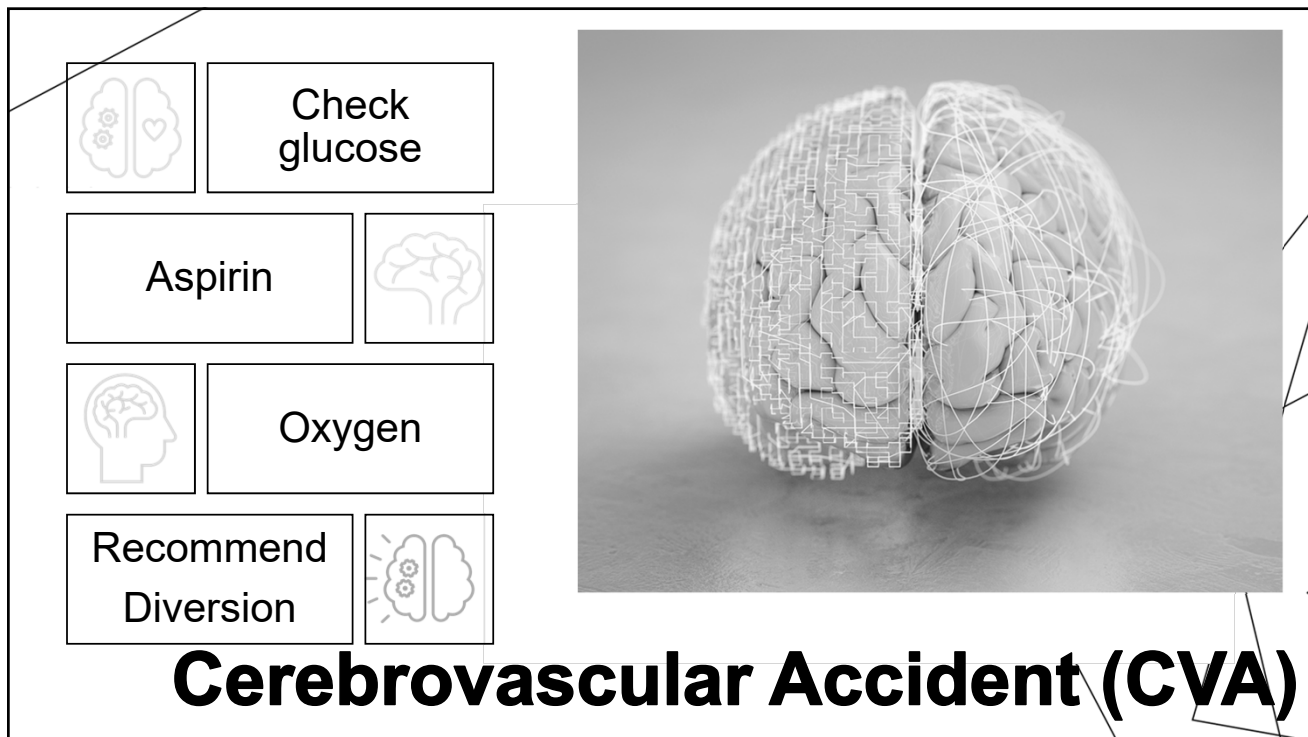
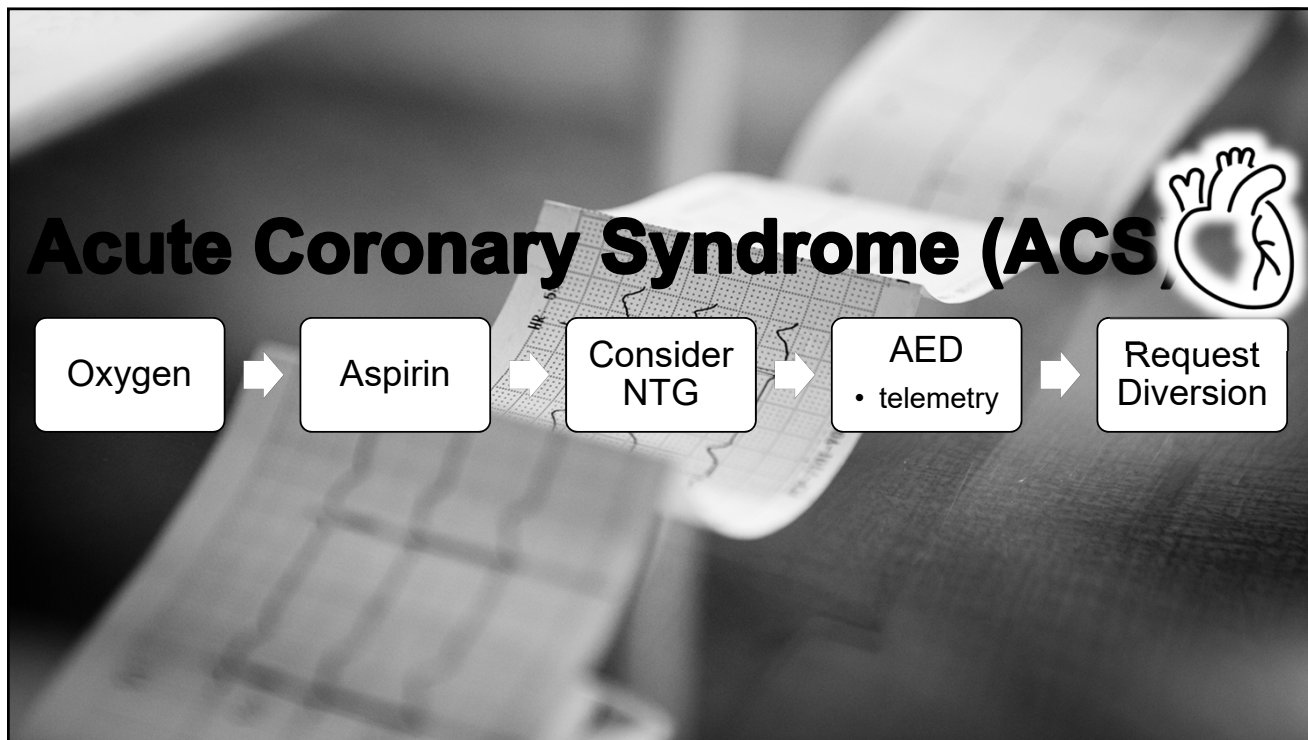
 INTRODUCE YOURSELF	 TREAT IN THE SEAT WHEN POSSIBLE	
 DOCUMENT FINDINGS AND TREATMENTS ADMINISTERED	 COMMUNICATE AND COORDINATE WITH FLIGHT CREW AND GROUND RESOURCES	
 DO NOT PRACTICE BEYOND YOUR EXPERTISE	 REQUEST AN EMERGENCY MEDICAL KIT	
	 USE A TRANSLATOR IF NECESSARY	



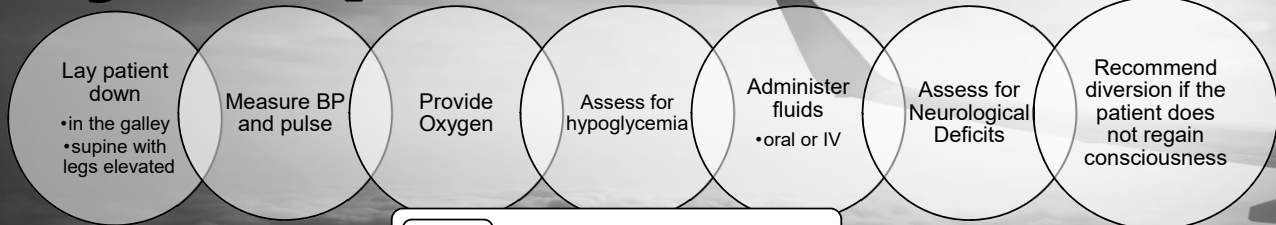



Cardiac Arrest


- Initiate CPR
- Obtain AED
- Code dose Epinephrin (1:10,000)
- If shock advised → give 100 mg (5mL) of lidocaine
 - Ventricular arrhythmia
- Recommend Diversion of flight
- Only physicians can declare death during a flight



Syncope



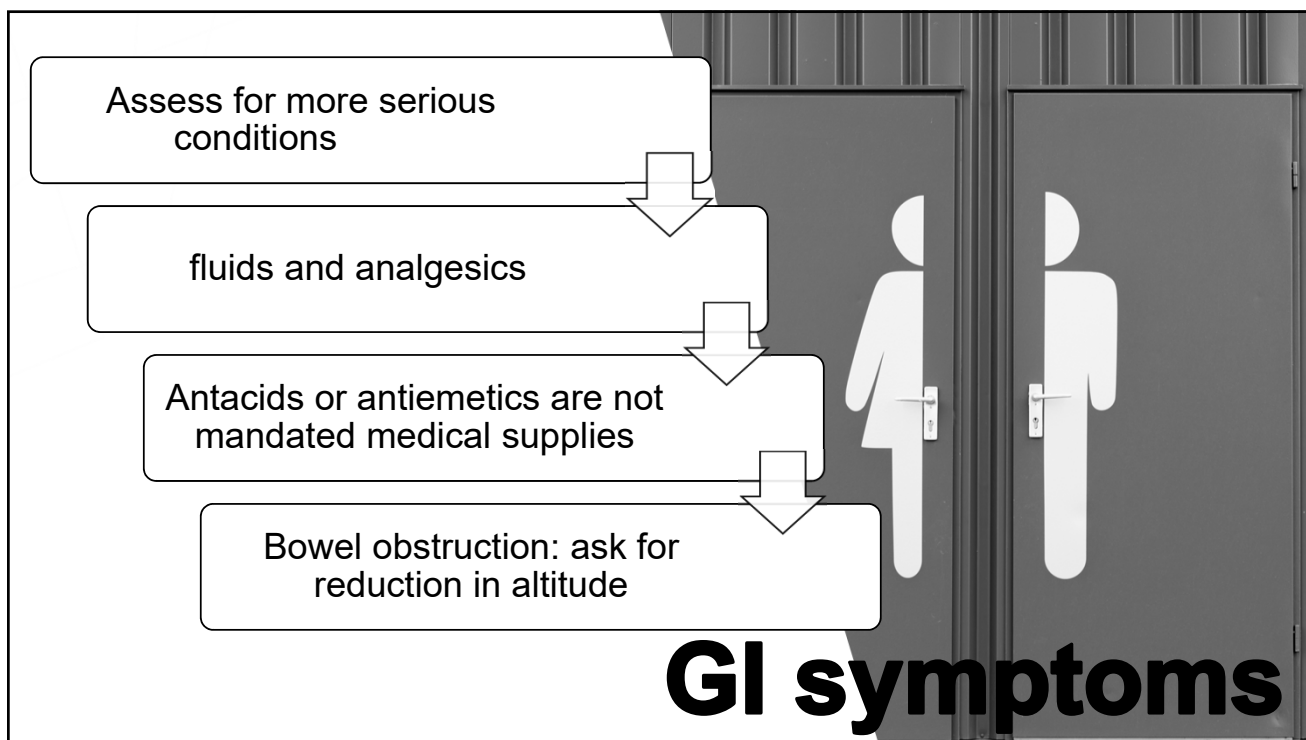
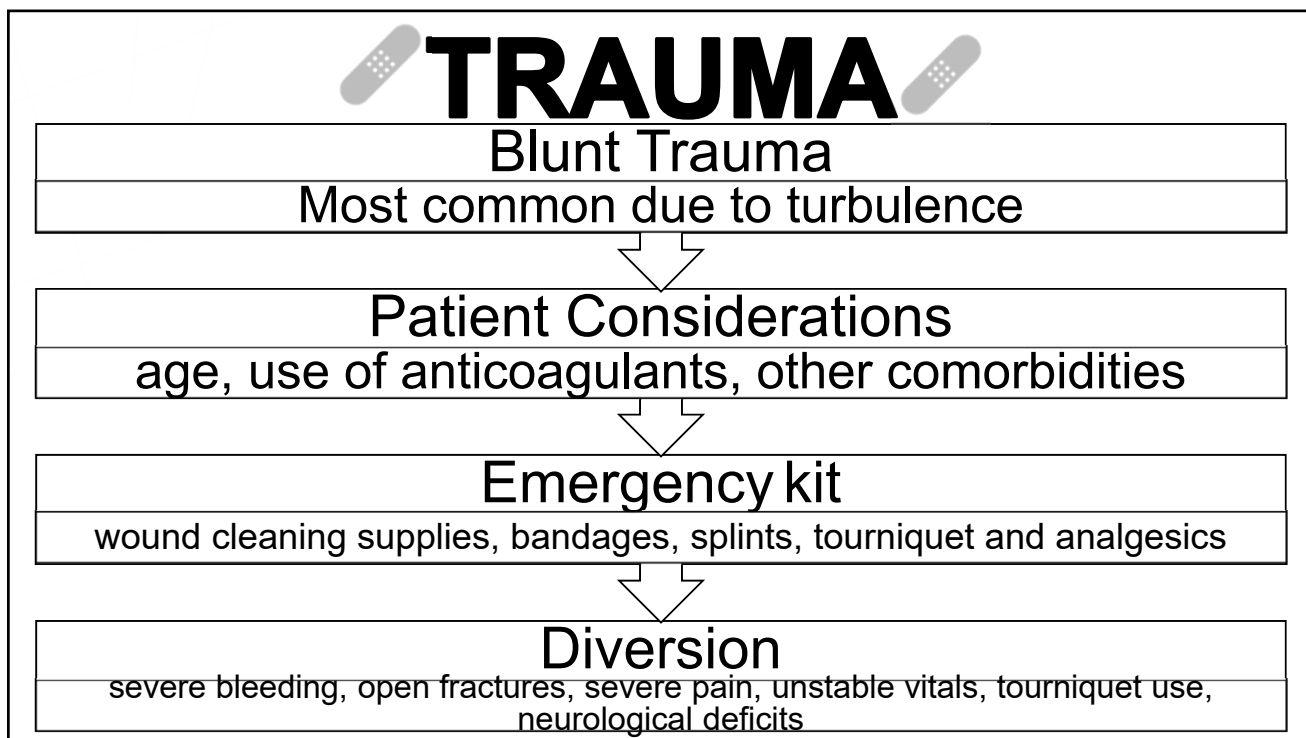
 37.4% of medical emergencies

 Decreased altitude arterial oxygen tension at


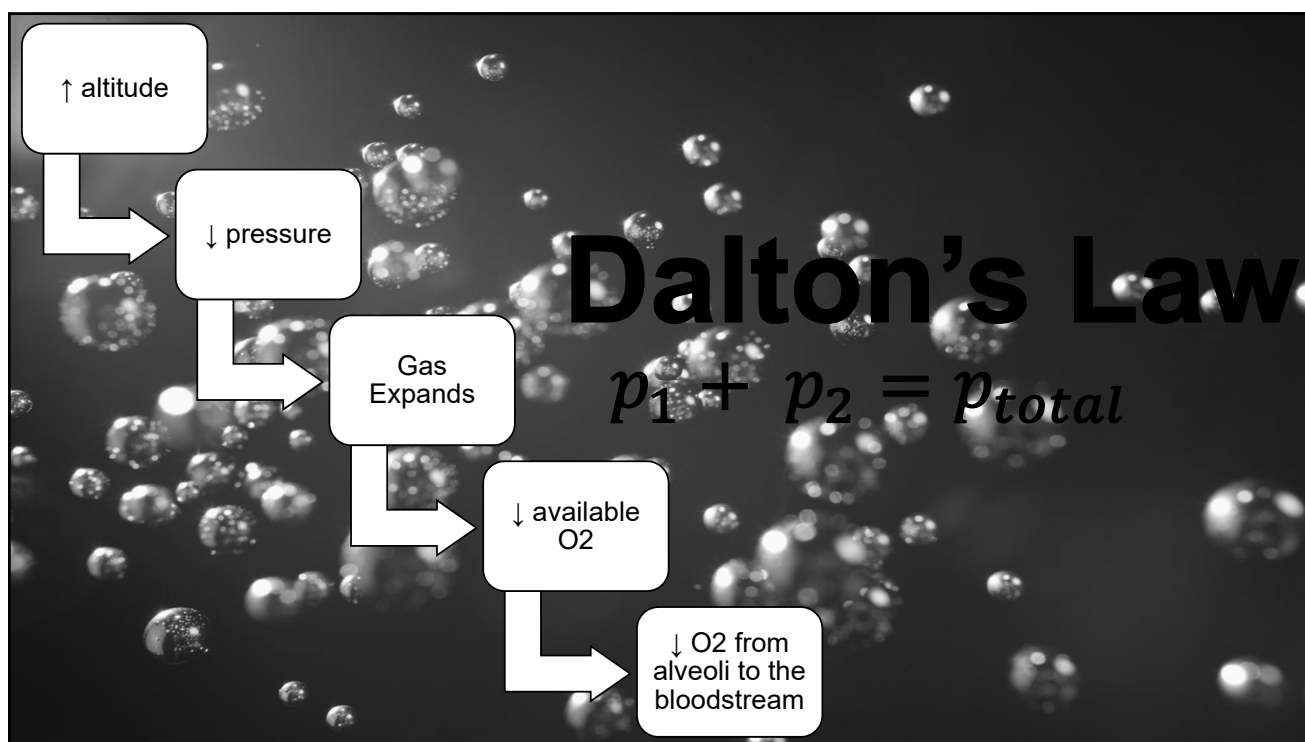
 Arid Environment

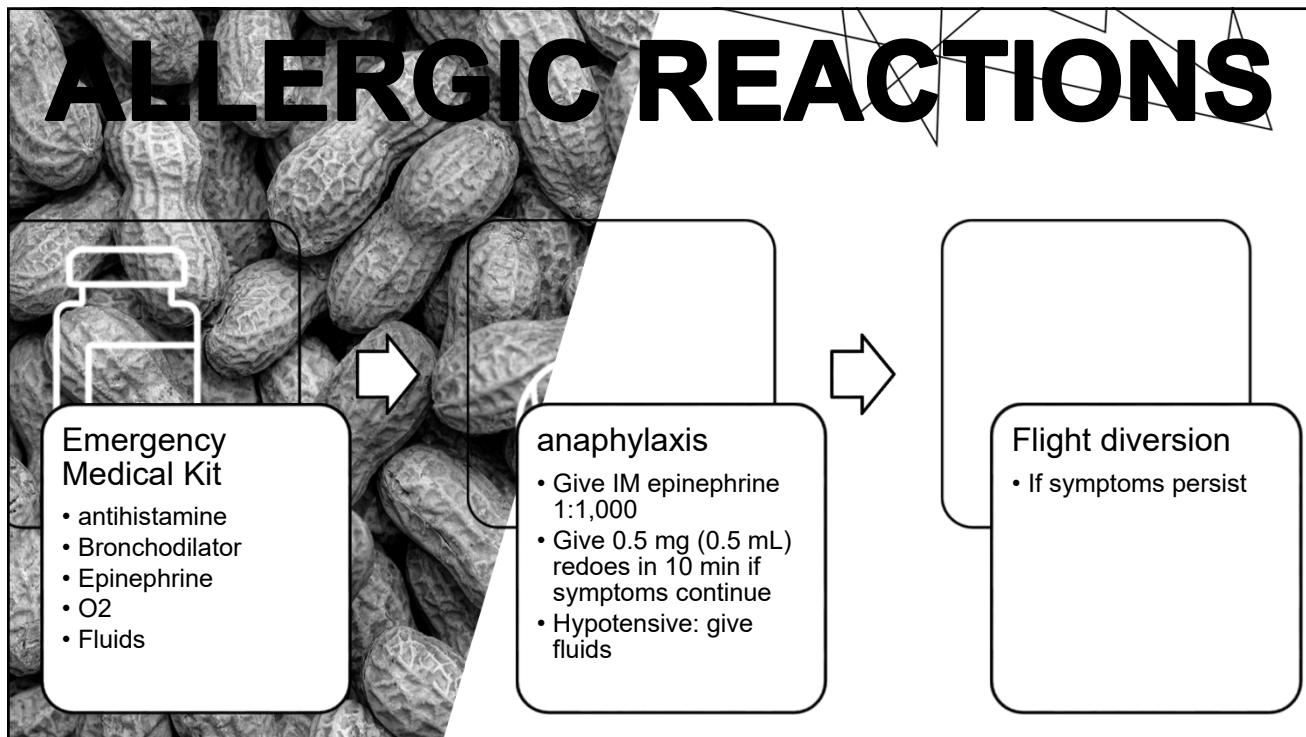
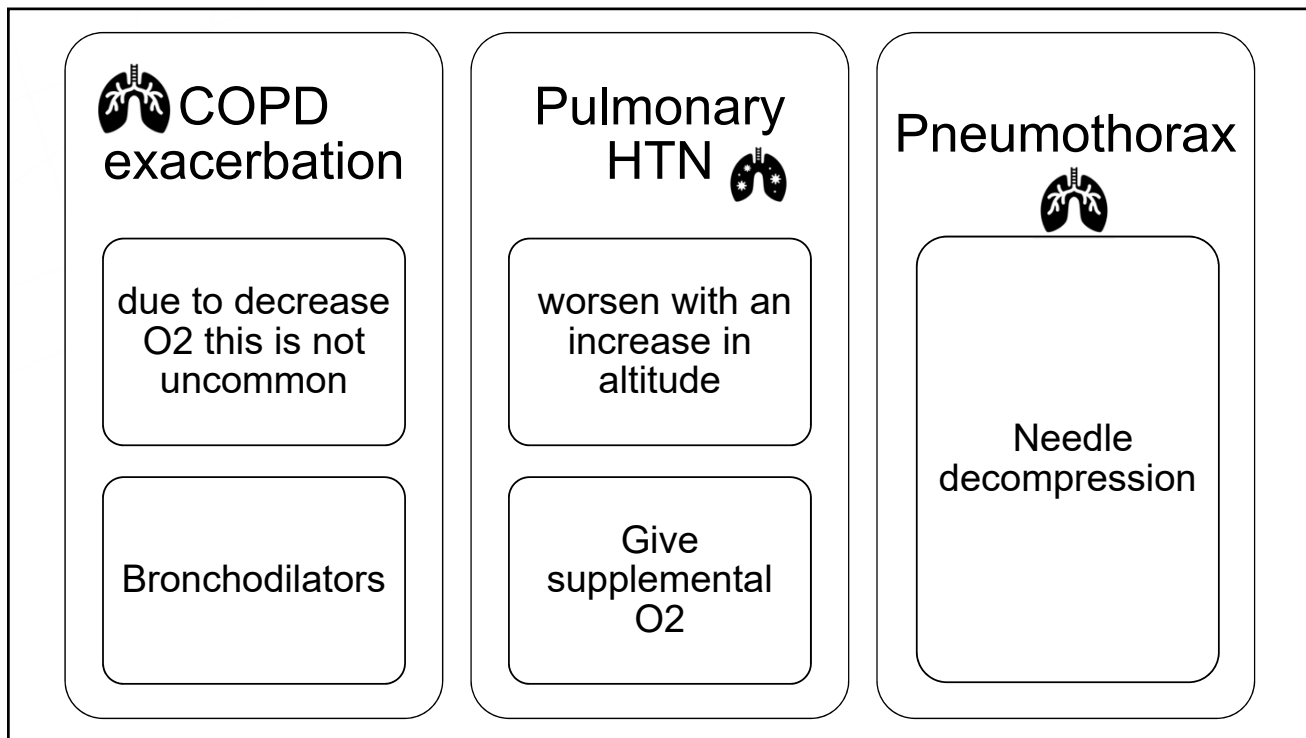
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<p>Seizures/post-ictal</p> <p>5.8% of emergencies Air travel can lower the seizure threshold Leave patient in seat and surround with blankets</p>	<p>Hyper/hypoglycemia</p> <p>1.6% of emergencies May need to ask for a glucometer</p>	<p>Opioid Overdose</p> <p>Narcan Provide oxygen</p>	<p>Diversion/immediate landing</p> <p>Unless a reversible cause is found</p>
<p>OTHER CAUSES OF ALTERED MENTAL STATUS</p>			






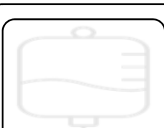

12% of emergencies	Large differential
Cabin pressurized equivalent altitude of 6,000-9,000 feet	Resting O2 sat <92% travel with extra O2
Dalton's Law Partial pressure of arterial oxygen: 60 mmHg	Descent to lower altitude/Diversion

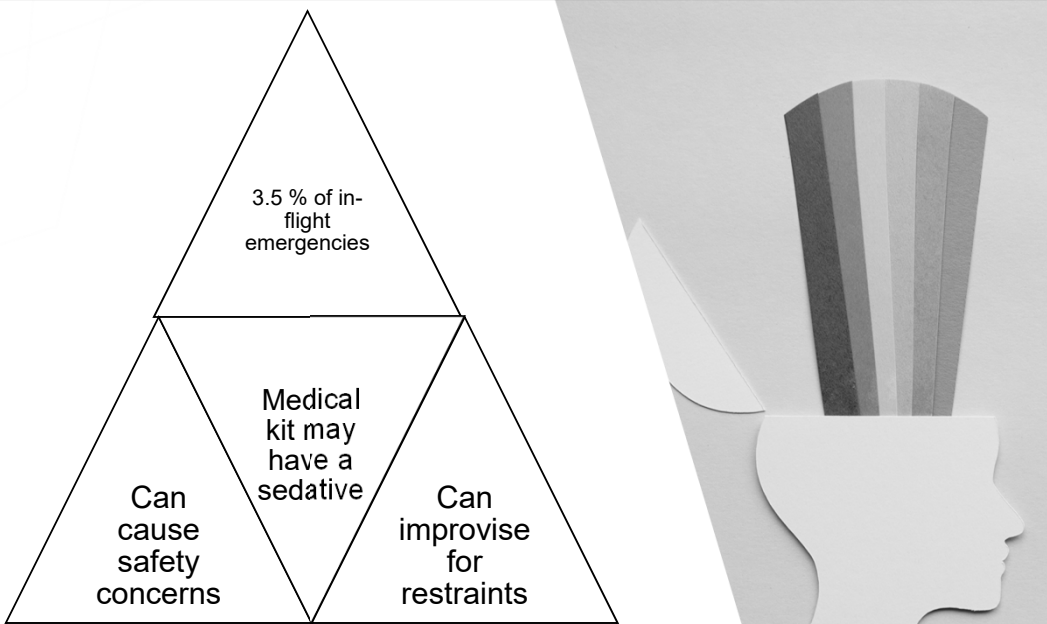





Obstetrical Emergencies



-  Prepare yourself and any assistants (flight attendants)
-  Prepare for neonatal resuscitation
 - blankets, oxygen
-  Post partum bleeding
 - IV access, Fluid, bandages, packing material
-  **Flight Diversion**



Psychiatric Emergencies

But what are the Rules?







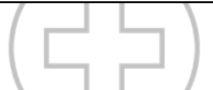
Liability is determined by the country the aircraft is registered

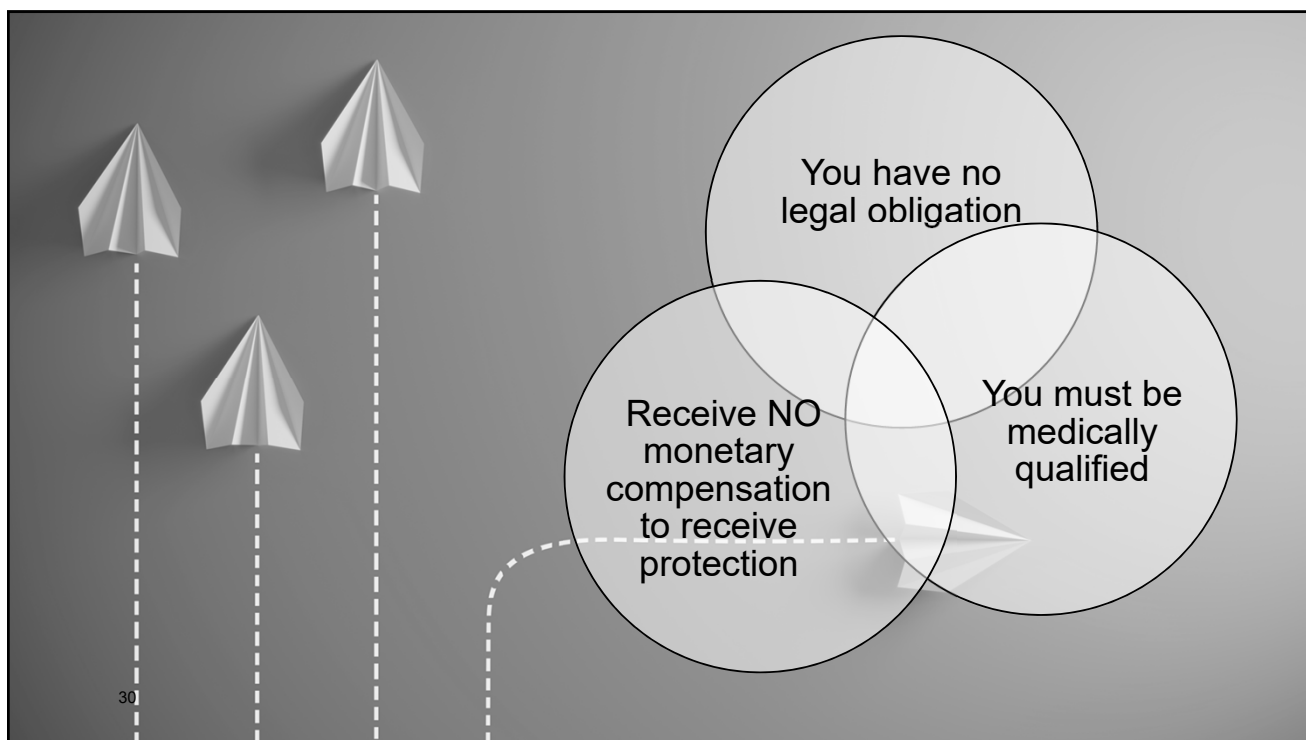
However, depending on the country where the incident occurs or the citizenship of the patient liability may change

In the US you have NO LEGAL OBLIGATION

Europe and Australia do impose legal obligation

AVIATION MEDICAL ASSISTANCE ACT 19

-  only applies in medical emergencies
Protections are not provided for non-emergencies
-  providers do NOT have to be asked to aid in receiving protection
-  protected if the pilot does not follow recommendations for diversion
providers do NOT have legal authority over the plane or its crew
-  does not make providers responsible if a patient is harmed due to the failure of the airline to have appropriate medical supplies available
-  providers are not absolved of their legal duties simply because they use resources provided by the airline - NO GROSS Negligence



What Should I do If I respond?

Obtain Airline medical incident form

Document assessment and interventions administered

You should request a copy for personal records

hand over care to on-ground medical staff once the plane lands

Flight Diversion


Can recommend diversion if patient's condition is unstable

Diversion is Expensive
\$3,000-
\$100,000

Diversion is made in consultation with ground-based medical expertise

The pilot makes the final decision regarding diversion





Introduce yourself, state level of training and specialty

This will determine who will be in the lead role

Ex: neonatologist should defer to ED physician due to the situation being beyond a scope of training

Who should lead?
If there are multiple volunteers



IS THERE A DOCTOR ON BOARD?

RESOURCES

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