

**What does an ADVANCED CARE PARAMEDIC (ACP) do
that is different from a PRIMARY CARE PARAMEDIC (PCP)?**

SEIZURES – During a seizure, patients are not breathing so a prolonged seizure can lead to brain damage.

ACP - give midazolam, a drug to stop a seizure instantly.

PCP - protect the patient from harm while in seizure.

TOO FAST OF A HEART RATE – some medical conditions cause a person's heart to beat abnormally fast, >200 beats/min. With a rate that fast a person will not be able to maintain an adequate blood pressure for very long. Without immediate intervention a person, could go unconscious and possibly die.

ACP - can teach a patient a valsalva manoeuvre to try to slow down the rhythm if the patient is stable. Have the drugs Adenosine or Amiodarone to treat these fast rates. Also have the ability to perform Cardioversion (shocking the heart to get it out of this deadly fast rhythm).

PCP – Monitor and transport to hospital.

TOO SLOW OF A HEART RATE – this condition can happen during a heart attack or other disruptions to the heart's conduction system. The heart becomes blocked and people can have a heart rate as low as 10-20 beats per minute. This too cannot maintain an adequate blood pressure. A person will turn blue, go unconscious and possibly die without treatment.

ACP - carry the drug atropine to treat this and can externally pace the heart (using energy from the defibrillator in a different way to increase a person's heart rate) once the pacer has been successful the ACP can administer medicine to ease the pain and sedate the patient.

PCP – Monitor and transport to hospital.

AIRWAY PROTECTION – Unconscious patients from a medical condition, drug overdose or traumatic injury are unable to protect their own airway. When a patient loses their gag reflex they cannot prevent things from entering their windpipe. Without a fully protected airway the patient can have vomit get into their lungs and die of an infection several days later or they could drown in their own blood.

ACP - can provide a Definitive Airway through intubation (the tube that you see inserted on every emergency medical show). This tube protects the patient's lungs and allows for assisted ventilations.

PCP - do not have a definitive airway. The supraglottic airway (called a King LT) that PCPs use can only be inserted once a patient has already died.

CHOKING – If a person becomes unconscious from choking on an object death is imminent.

ACP - can use a laryngoscope (handle with a lighted blade on it) and McGill Forceps (long scissor-like grabbing tool) to literally go down in to the person's windpipe and pull the object out.

PCP - chest compressions and check to see if object pops out.

PAIN MANAGEMENT – For: fractured bones, burns, kidney stones, back strain or cancer pain.

ACP – provides treatment with the narcotic morphine. Morphine is the standard of pain management in the hospital and it takes effect in 1-2 minutes, can give a patient up to 4 doses.

PCP - give hip and extremity trauma patients a Tylenol and an Advil tablet to swallow. If they are unable to swallow they can give one dose of ketorolac (an NSAID) which takes effect in 30 minutes.

CARDIAC ARREST RESUSCITATION - when a patient loses their pulse and respirations.

ACP – CPR, Manual Defibrillation, start IV and give the medications Epinephrine and Lidocaine that Physicians give to cardiac arrest patients in the hospital. Insert an airway and ventilate patient.

PCP – CPR, Semi-Automatic Defibrillation, Insert an airway and ventilate patient.

TENSION PNEUMOTHORAX – Trauma patients can develop a collapsed lung. Pressure builds up in their chest, essentially squeezing their heart out so much that it cannot pump effectively anymore. Without intervention this is fatal.

ACP - can insert a needle in to a patient's chest to relieve the pressure and restore proper function.

PCP - have no way to correct this.

COMBATIVE PATIENTS – Patients experiencing a head injury, are on drugs or have a mental health issue, can become extremely aggressive and uncooperative. This often leads to them harming themselves or others on scene or on the way to the hospital.

ACP - can give the drug midazolam to calm the person down and facilitate treatment

PCP - physically restrain the person if able to which may cause increased agitation and danger to all involved.

BLOOD PRESSURE TOO LOW – during a heart attack or after a successful cardiac resuscitation a person's blood pressure may be dangerously low.

ACP – start an IV and administer Normal Saline to try to increase the blood pressure. This procedure has limits and does not always work. If the IV fluid is unsuccessful, can give the drug Dopamine, this drug increases the strength of the heart's contraction to maintain an adequate Blood Pressure.

PCP – if certified in IV (not all are) start an IV and administer Normal Saline to try to increase the blood pressure.

HYPERKALEMIA – Patients with renal failure especially those receiving dialysis are prone to this condition, where too much potassium is in the blood. This can lead to fatal heart arrhythmias. Hyperkalemia can also occur from tissue breakdown, due to crush injuries.

ACP – give the drug Calcium Gluconate to stabilize the heart’s membrane and correct the conduction problem.

PCP – no treatment for this condition

NEW BORN BABY RESUSCITATION – If a baby is born that is not breathing well or has too low of a heart rate.

ACP – ventilate baby, chest compressions; if unsuccessful, intubation (inserting a breathing tube) and administering the drug epinephrine to accelerate the baby’s heart.

PCP - ventilate baby and chest compressions

Over half of all Paramedic Services in Ontario have Advanced Care Paramedics, including all major cities. Not one Paramedic Service has ever eliminated this level of medical care for their residents once it has been established.

In Southwestern Ontario all of these Paramedic Services have ACPs:

Brant County

Dufferin County

Essex County

Lambton County

London - Middlesex

Niagara Region

Waterloo Region

Guelph - Wellington