we put the rhythm back in algorithm
BLS

- safe to approach patient?
  - yes: responsive?
  - no: activate EMS / get defibrillator
- responsive?
  - yes: open the airway
  - no: breathing?
    - yes: give 2 rescue breaths
    - no: pulse?
      - yes: continue rescue breathing
      - no: start chest compressions
- tell the patient not to sleep on the ground
- recovery position
- do not approach patient
- determine rhythm
BLS

establish unresponsiveness
activate EMS / get defibrillator
open airway
check for breathing
rescue breathing
check for pulse
chest compressions
defibrillate shockable rhythms
patient is pulseless

determine rhythm

- rotate chest compression person at rhythm check

pulse & rhythm check

- shockable
  - address reversible causes

- shock

- resume CPR for two minutes

1. establish vascular access and intubate
2. vasopressor
3. antidysrhythmic
pulseless + shockable rhythm: easy

EMS / defibrillator, open airway, rescue breaths, chest compressions

pulse and rhythm check / change compressor

shock / resume compressions x 2 min

establish vascular access and intubate

pulse and rhythm check / change compressor

shock / resume compressions x 2 min

vasopressor (epinephrine or vasopressin)

pulse and rhythm check / change compressor

shock / resume compressions x 2 min

antidysrhythmic (lidocaine or amiodarone)

pulse and rhythm check / change compressor

shock / resume compressions x 2 min

address reversible causes

terminate efforts, apprise the family, debrief
Patient is pulseless

Determine rhythm

Not shockable

Pulse & rhythm check

Address reversible causes

Resume CPR for two minutes

1. Establish vascular access and intubate
2. Vasopressor

Rotate chest compression person at rhythm check
pulseless + unshockable rhythm: even easier

EMS / defibrillator, open airway, rescue breaths, chest compressions
  pulse and rhythm check / change compressor
  resume compressions x 2 min

  establish vascular access and intubate

  pulse and rhythm check / change compressor
  resume compressions x 2 min

  vasopressor (epinephrine or vasopressin)

  pulse and rhythm check / change compressor
  resume compressions x 2 min

  address reversible causes

  terminate efforts, apprise the family, debrief
address reversible causes

**Hypoxia:** Intubate the patient and provide 100% oxygen

**Hypovolemia:** Most undifferentiated arrest patients should receive a NS bolus - if suspicion for hemorrhage is high, administer uncross-matched blood

**Hypo/hyperkalemia:** Consider calcium chloride, especially in the patient with suspected renal insufficiency

**Hypoglycemia:** Consider D50

**Hypothermia:** Warm the cold patient

**Hydrogen ion/acidosis:** Consider bicarb, especially if toxicology is suspected

**Toxins:** In addition to bicarb, consider empiric antidotes - cyanide kit, digibind, naloxone, glucagon

**Tamponade:** Bedside ultrasound / pericardiocentesis

**Tension pneumothorax:** Breath sounds, bedside ultrasound / needle or tube thoracostomy

**Thrombosis:** Consider thrombolysis for PE or AMI

**Trauma:** Examine the entire head and posterior thorax
ECG interpretation

+pulse

stable?

yes

no

fast ↔ slow

synchronized cardioversion

pacing

altered mentation
chest pain
dyspnea
hypotension

call someone smarter than you

yes

no
it’s not rocket surgery