

You are dispatched for an elderly female patient having chest pain. Upon your arrival, the 75 year old patient states that she is having 8/10 chest heaviness in the middle of her chest with some mild shortness of breath. She had just finished raking some leaves and was making something to eat when the pain started about 20 minutes ago. She took two sprays of her nitro with no relief and then called 911 when the pain didn't go away. Your assessment reveals the following: HR – 68 bpm, regular and full; RR – 20/min, regular and laboured, no adventitious sounds on auscultation; SPO2 – 94% on RA; BP – 114/68, NSR in lead II, 12 lead ECG shows NSR, non-diagnostic of STEMI; skin is pale, cool, clammy; GCS – 15. The patient has a history of MI, CHF, GERD and takes the following medications – nitro, Lasix, Tecta, ASA, metoprolol, lisinopril, Lipitor. She states that she has no known allergies.

The attending PCP confirms that the conditions are met for ASA and nitro and that there are no contraindications while the attending ACP initiates an IV. All medications and skills are completed and you extricate the patient for transport.

Upon reassessment for further treatment the patient states that she is still having chest heaviness that is 8/10 and her vitals are as follows: HR – 62 bpm, regular and full; RR – 18/min, regular and full; SPO2 – 100% on O2; BP – 98/62; Repeat 12 lead just prior to transport is unchanged NSR, non-diagnostic of STEMI.

Given that the patient is no longer normotensive ( $>$  or  $=$  to 100mmHg systolic as described in the PCP and ACP Medical Directive Book, page 14, Introduction Section), you discontinue nitro administration, rule out morphine administration as the patient does not meet the condition (ie. normotensive) for administration and consider a fluid bolus as your next treatment option.

Would this patient meet the indications and conditions for a fluid bolus or should you patch for a fluid bolus? If you said no, you are correct! This patient is not normotensive but is also not hypotensive ( $<$  90mmHg systolic as described on page 14, Introduction Section of the PCP and ACP Medical Directive Book) which is a condition to initiate a fluid bolus.

Why is there a normotensive value and a hypotensive value within our directives? These values are utilized to create an “artificial buffer” so that immediate intervention may not have to occur to correct a treatment. Specific to this case, although the patient's blood pressure is not normotensive, a fluid bolus does not need to be initiated immediately allowing the body's natural physiological response to attempt correction. Continued reassessment of patient vitals and presentation are paramount in ensuring that further intervention is utilized when required (serial 12 lead ECG acquisition and interpretation upon arrival at the hospital, no further administration of nitro if the patient's blood pressure becomes normotensive).