The following protocol is designed as an approach to the conscious patient presenting with a primary complaint of chest pain, chest discomfort, and/or atypical signs/symptoms of cardiac nature

Patients less than 18 years old should NOT receive Nitroglycerin, Aspirin.

A. Cardiac Event

General Care

BLS

1. Initial Assessment/Care Protocol 1.
2. Administer **Aspirin 324 mg (4 tablets)** orally PO. Have the patient chew and swallow the baby aspirins. Prior to administration, assess the patient's history for the presence of possible contraindications to aspirin administration which include;

    a) Known allergy to aspirin.

    b) History of bleeding ulcers

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3. Monitor cardiac rhythm and perform a 12-Lead ECG.

NOTE: Obtaining a 12-Lead EKG should not delay transport of an unstable cardiac patient.

B. Indications for a 12-Lead ECG

Patients meeting any of the below criteria require a 12-Lead ECG **and** will be transported ALS with continuous monitoring of the ECG for any changes in the rhythm until transfer of care is completed.

a) All chest pain or chest discomfort, including atypical presentation, consistent with myocardial ischemia, unless due to penetrating injury.

b) Epigastric pain (unless evidence of G.I. bleeding) in all patients more than 35 years of age. Epigastric pain is defined as pain above the umbilicus.

c) Non-traumatic unexplained back pain, arm pain or jaw pain.

d) Sudden onset of any abnormal breathing problems (PE, Bronchospasm, SPO2 less than 94%).

e) Any cardiac dysrhythmia.

f) Heart rate greater than 120 BPM or heart rate less than 50 BPM. In children, heart rate more than 220 BPM.

g) Adult patient complaining of anxiety or when the primary impression is anxiety.

h) Adult patient 55 years of age or older complaining of general weakness/malaise or when the primary impression is malaise.

i) Diaphoresis not explained by environment. May be associated with nausea and/or vomiting.

j) Patient (including children) complaining of syncope or near syncope or when the primary impression is syncope or syncope and collapse.

k) Overdoses, if directed by the Poison Control Center.

l) Known or suspected carbon monoxide (CO) poisoning.

m) Administration of Nitroglycerin.

n) Administration of Zofran.

IF THERE IS EVIDENCE OF A STEMI, GO TO **PROTOCOL 11, SECTION A.**

C. Systolic B/P 90mmHg or greater

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1. Repeat Nitroglycerin every 3-5 minutes, if systolic BP remains above 90 mmHg or until complete relief of signs or symptoms. Maximum of 3 doses.

NOTE: DO NOT administer Nitroglycerin if a patient is known or suspected of having taken Viagra (sildenafil), Revatio (sildenafil) or Levitra (vardenafil) within the last 24-hours OR Cialis (tadalafil), Adcirca (tadalafil) within the last 72 hours. There may be additional sexually enhancing drugs that apply.

2. If patient continues to have significant chest pain, chest discomfort or is very agitated after nitroglycerin has been administered, and as long as the systolic BP remains above 90 mmHg, Fentanyl 50 mcg slow IVP may be given.

A. May Repeat 50 mcg Fentanyl once in 3-5 minutes if chest pain still significant (Max 100 mcg Fentanyl).

B. Individuals 65 years of age or older may be started at lower doses of Fentanyl, for example 25 mcg slow IVP. If lower doses are used, it may repeat doses multiple times for max total of Fentanyl 100 mcg. Need to document a BP after every administered dose.
C. May be withheld with paramedic judgement if ECG is not ischemic and the history and exam is highly suspicious for non-cardiac causes.
D. Do not withhold in suspected cardiac causes of chest pain with SBP above 90 mmHg after nitroglycerin.

NOTE: Fentanyl may be given concurrently with Nitroglycerin as soon as an IV is established.

3. Administer **Zofran 4 mg SL/SLOW IVP or IM** (Do not administer to pregnant females) Medication 33.

D. Systolic B/P is less than 90mmHg

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1. Administer a **fluid bolus of up to 1000 mL**, reassess BP and lung sounds often. Discontinue administering fluids once the systolic BP 90 mmHg or more.

   NOTE: The entire 1000 mL of fluids does not have to be administered in order to proceed to Epinephrine. Clinical judgement may be used in determining when to proceed from fluids to Epinephrine.

2. If the blood pressure remains less than 90 mmHg, administer Epinephrine Infusion 5 mcg/min. Titrate to desired effect up to 40 mcg/min. Appendix 9.2.

   Mix Epinephrine 1mg/1mL, 10 mg (10 mL) into a 500mL NS bag with a 60 gtt/mL set to yield a concentration of 20 mcg/mL and begin administration at approximately 1 drop every 4 seconds and titrate to desired effect. Max dose of 40 mcg/minute (2 drops every second). Appendix 9.2

3. If the desired effects are not achieved with the Epinephrine Infusion, administer Dopamine Infusion of 10 mcg/kg/minute and titrate to desired effect up to a max dose of 20 mcg/kg/minute. Appendix 9.1.