



Kendall Park First Aid & Rescue Squad Standard Operating Procedures



Non-Traumatic Chest Pain Protocol Suspected Myocardial Infarction

1. Assess the patient's overall appearance, mental status, airways, breathing, and circulation, per patient medical assessment protocol. If patient is pulseless, initiate cardio-pulmonary resuscitation (CPR). Continue assessment of the patient, but make sure high-quality CPR is maintained at all times.
2. Assess and manage the airway, as appropriate. If the patient is unresponsive insert a oropharyngeal airway(OPA), if tolerated. If not tolerated or patient is responsive but has a depressed mental status, consider a nasopharyngeal airway, if severe facial trauma is NOT present.
3. Monitor breathing for adequacy. If patient is apneic or if patient has a respiratory rate of less than 8 breaths per minute and/or has shallow breathing, initiate and/or assist patients breathing with a bag-valve-mask device supplemented by oxygen.
4. Consider the administration of oxygen. If patient complains of shortness of breath or has a SpO₂ value greater than 89% and less than 95%, place on oxygen via nasal cannula (or simple mask, if nasal cannula is not tolerated) titrated to bring SpO₂ value to 95% or more. If patient show signs of severe respiratory distress or has a SpO₂ value of 89% or less, place the patient on oxygen via a non-rebreather mask. If oxygen is administered using a non-rebreather mask, minimize interruptions to give medications.
5. DO NOT permit physical activity.
6. Request Advanced Life Support (ALS) assistance. DO NOT delay transport.
7. Place patient in a position of comfort and keep warm.
8. Obtain a set of vitals including pulse rate, quality, and regularity; blood pressure; respiratory rate and quality; SpO₂ value; and lung sounds.
9. Obtain a detailed description of patients chest pain including: when the pain started; what, if anything, makes the pain better or worse; quality of the pain; if the pain radiates to any other area; severity of the pain (on a 0 to 10 scale); and how the pain has changed over time. Also exclude trauma as a cause for the pain.
10. If patient is alert, can follow instructions, and has chest pain that is not due to trauma, administer 324 mg. of aspirin utilizing the 81 mg. flavored, chewable aspirin carried by the squad, if none of the following contraindication are present:
 - a. patient is under 19 years of age
 - b. patient has a known hypersensitivity or allergy to aspirin
 - c. patient has taken 325 mg. or more of aspirin in the past 24 hours.
 - d. patient has indication of internal or severe external bleeding or active bleeding concern (e.g., stroke or surgery within last 6 month, bleeding ulcer, etc.)
 - e. patient is pregnant
 - f. there is a suspicion, based on presentation, of thoracic aortic aneurysm or abdominal aortic aneurysm (see note #1).
11. Confirm that the aspirin is not expired, discolored, or crumbling. If expired, discolored, or crumbling, do not use and notify a line officer or the supply officer as soon as possible (see note #2).
12. Obtain patient's consent to give him aspirin, explaining briefly the benefits and risks (see note #3).

13. If patient has non-traumatic chest pain and has not taken any aspirin in the last 24 hours, give the patient four (4) 81 mg. chewable aspirin tablets. If patient has taken less than 325 mg. of aspirin in the last 24 hours, you may give them either one(1), two (2), or three (3) 81 mg. tablets, such that the total aspirin consumed in the last 24 hours does not exceed 325 mg.
14. Either hand the aspirin tablets to the patient to put in his/her mouth or place the tablets directly into the patient's mouth (avoid placing your fingers into the patient's mouth) and instruct the patient to CHEW the tablets thoroughly and then swallow. The patient may be given a small amount of water to drink to help him/her swallow the tablets after chewing them.
15. If the patient is alert, can follow instructions, has chest pain not due trauma, and has sublingual nitroglycerin (NTG) [also known as glyceryl trinitrate (GTN)] prescribed for him/her and has it available (either tabs or spray), you may administer the medication or assist the patient with taking his/her medication providing none of the following contraindications are present:
 - a. patient is under 18 years of age
 - b. patient has already taken 3 or more doses for the current episode of chest pain (see note #4)
 - c. their systolic blood pressure is less than 100 mm. of Mercury (mm. Hg)
 - d. patient has sustained a recent head injury
 - e. patient has taken a medication containing a phosphodiesterase (PDE) inhibitor (i.e., an erectile dysfunction medication such as Viagra and Cialis) within the last 72 hours.
16. Confirm that the nitroglycerin medication is prescribe to the patient and is not expired. Examine the medication to confirm it is useable. For tabs make sure that the bottle is sealed, the tabs are not discolored or crumbling. For sprays make sure the medication is not cloudy or has precipitates. If any of these conditions are present, the medication is not useable. Do not use the medication and document this in the patient care record.
17. If the medication is useable, obtain patient's consent to give him nitroglycerin, explaining briefly the benefits and risks (see note #5).
18. Place a tab under the patient's tongue and tell the patient to let it dis solve completely and not to swallow it. If the spray version is used, waste a spray to insure the unit is ready, then spray one spray under the tongue telling the patient to allow it to be absorbed sublingually and not to swallow. (See note #6.)
19. After 3 to 5 minutes obtain a blood pressure and patients pain level (on a scale of 0 to 10). If the systolic blood pressure is 100 mm. Hg or higher, the pain level is greater than zero, and the patient has not yet received 3 doses for this episode, a second dose may be administered as described above. If the blood pressure is below 100 mm. Hg, the patient is pain free, and/or the patient has received 3 doses of nitroglycerin for the current episode, DO NOT administer any more nitroglycerin.
20. After another 3 to 5 minutes obtain another blood pressure and patients pain level (on a scale of 0 to 10). If the systolic blood pressure is 100 mm. Hg or higher, the pain level is greater than zero, and the patient has not yet received 3 doses for this episode, a third dose may be administered as described above. If the blood pressure is below 100 mm. Hg, the patient is pain free, and/or the patient has received 3 doses of nitroglycerin for the current episode, DO NOT administer any more nitroglycerin.
21. Document dose(s) of aspirin and nitroglycerin given, time(s) of administration, patient's response, and any side effects noted in the patient care record and communicate this information during transfer of care to ALS and/or receiving facility staff.
22. Promptly transport patient to the hospital. Recommend a hospital capable of doing percutaneous coronary intervention (PCI). DO NOT delay transport waiting for ALS. DO NOT delay transport to give medications, it should be given en route to the hospital.

Notes:

1. Typical chest pain associated with a myocardial infarction is substernal and often described as a squeezing pain or pressure. It often radiates to the jaw, left shoulder, left arm, or even the back. It can, however, be atypical, especially in women and diabetics. Pain associated with thoracic and abdominal aortic aneurysm is often more vague and difficult to localize, often being throughout the chest and/or abdomen. It is often described as a twisting pain. If unsure whether the pain is associated with a myocardial infarction or an aortic aneurysm, it is better not to give aspirin and defer to more advanced providers.

2. If the aspirin carried in the ambulance is unuseable, you may use aspirin provided by the patient. It must not be expired and must not be discolored and/or crumbling. Use enteric-coated aspirin only as a last resort, if no other aspirin is available. Use care to determine the amount of aspirin in each tablet (generally, 81 mg., 162 mg., or 325 mg.) Make sure the aspirin given to the patient plus the aspirin taken by the patient during the last 24 hours does not exceed 325 mg. The tablet(s) must be chewed, even if they are NOT chewable. Aspirin powder may only be used if it comes in packets indicating the amount of aspirin powder in the packet. Do not estimate partial doses of powdered aspirin.
3. Generally the benefits of aspirin are preventing blood clots in the coronary arteries from forming or getting larger. The risks are the side effects, the most common of which include: dyspepsia, epigastric discomfort, heartburn, and nausea.
4. Generally, an episode is a period of chest pain that is continuous even though the pain may change in severity and even stop for short periods of time which are less than 15 minutes. If the patient had chest pain and was completely free of pain for 15 minutes or more and then experiences chest pain again, this is considered a new episode.
5. Generally, the benefits of nitroglycerin are enlarging the coronary arteries, allowing blood to pass around a blood clot, thus reducing the severity of chest pain. The risks are the side effects, the most common of which include: headache, weakness, dizziness, lightheadedness, nausea, and flushing.
6. The amount of nitroglycerin in a single dose (either 1 tab or 1 spray) is 0.4 mg.

Approved By:

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Dated: _____