CPER digest January 2015

You are called to a residence to treat a patient complaining of chest pain. Your assessment reveals that the description is consistent with cardiac ischemia/infarct and you decide to treat. You apply oxygen and the cardiac monitor, attain a baseline set of vitals, perform a 12 lead ECG, administer ASA and initiate an IV. The patient indicates that he has taken a phosphodiesterase inhibitor last evening contraindicating nitroglycerin administration.

1. Should this patient still receive morphine?
   The answer is **YES** if all indications and conditions are met and no contraindications are found.

"Morphine is only to be considered following the third nitroglycerin administration (unless nitroglycerin is contraindicated)" (OBHG, 2013).

Morphine administration should be considered for all patients who are experiencing pain/discomfort as a result of cardiac ischemia/infarct. If the patient is unable to receive nitroglycerin (i.e. phosphodiesterase inhibitor use, heart rate parameters, allergy/sensitivity etc.), morphine administration should still be considered if no contraindications are found. As an example, if the HR of the patient falls out of range for the administration of nitroglycerin, morphine should be considered and/or continued.

Supporting evidence:
"Morphine should be administered intravenously and titrated to pain relief in patients with STEMI. Morphine may be considered for pain relief in subjects with suspected NSTEMI. Some form of analgesia should be considered for patients with active chest discomfort" (O'Connor et al., 2010).

When administering morphine for cardiac chest discomfort or for other pain management, remember to document pain scales and any changes pre/post administration

2. Should this patient receive dimenhydrinate (Gravol)?
   The answer is **NO**, not routinely. The use of Gravol in conjunction with morphine administration without the presence of nausea or vomiting can cause potentiated effects. "Potentiation occurs when two drugs are taken together and the effects of one drug intensify the effects of the other…Gravol may exaggerate the effects of morphine therefore less medication is required to achieve the desired effect" (OBHG, 2007). A retrospective study published in Prehospital Emergency Care concluded that only about 7% of the sample patients who received morphine suffered from nausea or vomiting post administration (Fleischman et al., 2010).

References:

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