Hartford Hospital
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To: All Hartford Hospital Sponsored Services and Providers

From: Charles Johndro, DO
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EMS Coordinator

Re: Guidance regarding IM med administration, treatment of abdominal pain and maternal analgesia/anti-emesis

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In response to questions, we are issuing the following guidance to assist Hartford Hospital sponsored EMS providers in delivering the most appropriate prehospital patient care. Nothing in this memo is intended to contradict approved Regional or State EMS patient care guidelines or protocols.

As previously communicated, intramuscular (IM) epinephrine is to be injected into the large muscle of the lateral thigh (*vastus lateralis*) whether by auto-injector or syringe. When administering other IM medications (e.g. midazolam), it is still preferable to utilize the lateral thigh (if accessible) due to more rapid absorption. If the thigh is not easily accessible or the paramedic has reason to prefer an alternate site, it is acceptable to administer IM medications (other than epinephrine) into the deltoid muscle.

It continues to be our position as an EMS Sponsor Hospital that patients complaining of abdominal pain should be attended by the paramedic provider. The reasoning for this is that no validated clinical algorithm exists for EMS to rule out potentially life-threatening conditions in this patient population. Providers have inquired what the minimum expected care set is when attending a patient with abdominal pain. As often is the case, the answer is "it depends." Pain above the umbilicus should indicate a 12-lead ECG. Moderate to severe pain should usually result in an offer of analgesia. Antiemetics should be considered for nausea or vomiting. Whether to establish IV access depends on paramedic judgment. This decision should be based on the patient's appearance, suspected clinical condition, hemodynamic stability and the need to administer medications or fluids.

Pregnant patients experiencing moderate to severe pain may receive opioid analgesics if indicated (similar to any other patient). This includes patients in active labor (though non-pharmaceutical pain relief methods should be attempted first). Care should be taken to avoid excessive dosing and maternal sedation since maternal hypoventilation and resultant hypoxia may be harmful to the fetus. Fentanyl may be preferred in active labor (over morphine) due to its short half-life and lower fetal/maternal distribution ratio. Short-term administration of opioids to address acute maternal pain should not induce dependence in the fetus and is unlikely to be directly harmful (with judicious administration). Closely monitor any patient receiving opioids for sedation (clinical observation, etCO2, SpO2). Be certain to accurately and effectively communicate information regarding EMS opioid administration to receiving facility medical staff.

Some limited and conflicting evidence has been published over the last several years questioning the safety of ondansetron (Zofran) in the first trimester of pregnancy. It is with an abundance of caution that our sponsored paramedics should avoid ondansetron in patients known to be pregnant and instead choose metoclopramide as a first-line antiemetic in this population.