Prehospital Pain Management

Imagine responding to a patient and performing a quality EMS assessment that correctly identifies their chief complaint then specifically NOT providing any treatment or relief for that specific problem? A heart attack patient for which you declined to give Nitroglycerin? A Shortness of breath patient for which you did not want to give Albuterol? This is the situation that surrounds the relief of pain in the prehospital setting.

Pain is a real human experience. It is both beneficial and destructive. The stimulation and relief of pain changes people's behavior and their view of the world. Whether it is good or bad, beneficial or harmful it is impossible for the person experiencing pain to ignore it.

On the beneficial side pain draws attention to injures and serious medical conditions. The bodies of athletes are constantly being pulled, twisted and strained. How then does an athlete know when a physical movement has crossed over from a normal range of motion in to a fracture or dislocation? Physical activity must stop when an injury has occurred because to continue to use any broken anatomy will result in a lifetime disability. It is pain that forces the athlete to stop their activity so that healing can begin and disability lessoned. An inflamed appendix that bursts open spilling its infected contents into the sterile peritoneum can quickly cause death. But how would anyone know that this has happened if it were not for pain? Pain leads people to seek medical care for a serious physical problem.

On the detrimental side, pain changes human behavior. People performing torture have long known that the intentional inflection of pain can cause a person to behave in ways that they normally would not behave just to avoid the pain. Pain is very powerful. Chronic pain changes personalities. People who have been happy and kind their entire life before being subjected to chronic pain (such as arthritis or an old injury) have been known to become irritable, angry and unsociable.

Pain is a symptom, a symptom that can be effectively treated in the prehospital setting. To not properly evaluate and treat pain is wholly improper and a violation of LA County Prehospital Medical Control Guidelines 'Pain Assessment' and Treatment Protocol #1248 'Pain Management'. The guiding principle in LA County is that "All patients with any complaint of pain shall have an appropriate assessment and pain management".

Pain assessment begins with the 'OPQRST' questions to understand the general conditions of the pain. Severity is an important part of pain assessment. It is well known that some people are very expressive of minor pain and some people are very stoic and do not outwardly show even very severe pain. Asking patients to rate their pain on a 1-10 scale can be of benefit but language barriers and age (yes, children have pain too) prevent them from understanding what you are asking. In these situations the use of the smiley face scale (shown below) can help by asking patients to point to the face that best expresses how they feel at that moment. Sometimes just the nature of the chief complaint will lead the paramedic to assume that the level of pain is such that both interventions and analgesic medication is needed. Conditions such as; burns, isolated extremity trauma, hip fractures, chest pain not relieved with NTG or just the chief complaint of 'pain' automatically requires that something be done. Interventions to be used before medication include; splinting, positioning, cooling (ice/cold pack) distraction and reassurance.

When it is determined that medication is the best way to relieve the pain, morphine is the drug of choice. The dose is 2-12mg slow IV push and 4-12mg IM (if an IV cannot be obtained) Children receive 0.1mg/Kg IV or IM or as described on the LA County Color Code Kids pages.

What about situations when morphine should not be used? The direct contraindications are; allergies to morphine, current altered level of consciousness, known hypovolemia and a respiratory rate below 12 breaths a minute.

Morphine is a vasodilator so it should be used very cautiously whenever the systolic B/P is below 100mm/Hg or there is multi-system trauma that likely to lead to shock. Because morphine depresses respirations it is not advised in active labor situations – it could depress respirations in the newborn. A significant indicator of intracranial damage or injury (bleeds?) is a continued re-assessment of the patient's LOC for changes. The entire point of morphine is to alter sensations so it is not advisable to administer it to patients who have a head injury but are still oriented.

Morphine administration to the elderly also needs careful evaluation for adverse reactions but is not contraindicated. The decrease in the number of nerve cells that accompanies aging means that elderly patients might not express pain as openly as younger people do, but they do still have pain. It should also be noted that elderly patients sometimes have been diagnosed with a dementia (Alzheimer's disease). Dementia is an alteration to normal mental status and this is normally a contradiction to morphine. But because the cause of the altered mentation is known and because **people with dementia do experience pain**, (hip fracture?) the use of morphine is appropriate. The dementia patient should always have a caregiver nearby who knows them, and can help you with these challenging pain evaluations.

A common misunderstanding is that morphine should not be given to patients with abdominal pain. The thought was that pain is a diagnostic tool that the doctors at the hospital will use to evaluate the cause of the pain. Before the days of Laboratory tests, CT scans, MRIs and endoscopes pain would have been one of the major evaluation tools available to doctors. Today, if an MD does need to see the patient in pain as part of their diagnostic process, then any morphine that was given in the field can be reversed by using naloxone.

What about situations involving addicts and drug seeking behavior? Addiction is a very real problem and treatment is very complex. One thing is certain, the treatment of drug addiction is not in the paramedic scope of practice and the withholding of narcotics by a paramedic is not going to end an addiction. It is better to give narcotics to 100 addicts than to deny pain management to a single patient who is in real pain.

The field administration of any medication always requires base hospital contact for orders and morphine is no exception. But not every situation where a patient is experiencing pain reaches the level of mandatory base contact criteria (Ref #808). Examples are isolated extremity injury and small BSA burns. If a patient is experiencing pain the EMTs on scene should recognize that the administration of morphine is appropriate and not cancel the ALS response.

The corollary is also true. Just because paramedics have managed a patient's pain by using morphine they do not automatically require an ALS transport to the hospital. If the entire scenario allows, it is perfectly acceptable for ALS to make contact for a morphine order and when the patient's pain has been adequately managed the patient can be transported by EMTs.

All the above situations should be backed up with quality documentation concerning the patient assessment findings both before and after all pain management techniques.

The Los Angeles County numeric and facial expression pain scale: