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Pain Management in the Prehospital Environment

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> ''Care more for the individual patient than for the special features of the disease.''
>
> William Osler, 1899

Pain is the leading complaint among individuals presenting to emergency departments, with up to 70% of emergency department patients having pain as part of their chief complaint [1]. Therefore, pain is also a major reason why individuals seek care from prehospital providers. In fact, McLean et al [2] found that at least 20% of prehospital patients reported moderate or severe pain. Multiple other studies [3–7] have also demonstrated that prehospital providers and emergency physicians fail to adequately recognize, assess, and treat pain. These inadequacies in prehospital pain management have resulted in recommendations to incorporate assessment scales and treatment protocols, and to undertake further pain research [6–9]. Despite these recommendations, many emergency medical services (EMS) systems still lack protocols that adequately address and treat pain in the prehospital setting.

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In addition to inadequate protocols, there are many obstacles to adequate pain assessment and management in the unique prehospital environment. Some of these obstacles are agent availability, provider education level, controlled substance regulation, transport time, possible delay in transport, and lack of education and research [6,9,10]. This article presents a review of the current literature addressing some of these pain assessment and management obstacles in the prehospital setting, and provides possible suggestions and solutions for future directions in pain education, assessment, and management in the prehospital arena.

History

The introduction of an ambulance service into the United States Army in the early 1860s led to the first uses of prehospital analgesia. Many of these early ambulances carried "medicinal" brandy or other liquors for pain management. Civilian ambulances saw their first use of analgesia practice after the Civil War. In addition to providing liquors, these civilian ambulances carried rudimentary splints. Although not fully recognized as doing so at the time, these rudimentary splints also provided a measure of pain relief for the patient. In fact, most protocols during the early period of prehospital care involved only on-scene treatment, with transportation back to the patient's home. As medical care continued to evolve and hospital-based care gained more prominence, little attention was given to the prehospital medical care of the patient throughout most of the twentieth century. This unfortunate trend in of prehospital medical treatment is exemplified by the fact that even in the 1960s at least half of these "ambulances" in the United States were hearses [6]. During this time, the acceptable protocols were to transport the patient to the hospital without providing on-scene or in-route medical care.

The recognition, assessment and treatment of patients' pain has recently gained much focus and importance in the management of prehospital patients [6,9]. Pain has been termed "the fifth vital sign" after receiving increased attention from the Joint Commission on Accreditation of Health Care Organizations (JCAHO) [11]. The National Association of EMS Physicians (NAEMSP) has also issued a position paper on prehospital pain management, addressing the importance of the recognition, assessment, and treatment of prehospital pain [6].

Protocols

One area that will help improve pain assessment and treatment in the prehospital setting is the development of pain protocols. Currently, many systems require that the paramedic contact a base hospital physician before administering any pharmacological analgesia. This can lead to a delay in the delivery of analgesia to the patient in pain.