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THE TREATMENT OF ACUTE PAIN IN THE EMERGENCY DEPARTMENT: A WHITE PAPER POSITION STATEMENT PREPARED FOR THE AMERICAN ACADEMY OF EMERGENCY MEDICINE

Sergey Motov, MD,* Reuben Strayer, MD,* Bryan Hayes, PHARMD,†‡ Mark Reiter, MD, MBA,§ Steven Rosenbaum, MD,‖ Melanie Richman, MD,¶ Zachary Repanshek, MD,** Scott Taylor, MBBS,†† Benjamin Friedman, MD,‡‡ Gary Vilke, MD,§§ and Daniel Lasoff, MD§§

*Department of Emergency Medicine, Maimonides Medical Center, Brooklyn, New York, †Department of Emergency Medicine and Toxicology, Massachusetts General Hospital, Boston, Massachusetts, ‡Department of Emergency Medicine, Harvard Medical School, Boston, Massachusetts, §Department of Emergency Medicine, University of Tennessee-Murfreesboro, Murfreesboro, Tennessee, ‖Department of Emergency Medicine, Mountainside Medical Center, Montclair, New Jersey, ¶Department of Emergency Medicine, Trumbull Memorial Hospital, Warren, Ohio, **Department of Emergency Medicine, Lewis Katz School of Medicine, Temple University, Philadelphia, Pennsylvania, ††Department of Emergency Medicine and Intensive Care Unit, Northern Health, Melbourne, Australia, ‡‡Department of Emergency Medicine and Medical College, Albert Einstein College of Medicine, Bronx, New York, and §§Department of Emergency Medicine, University of California, San Diego School of Medicine, San Diego, California

Reprint Address: Sergey Motov, MD, Department of Emergency Medicine, Maimonides Medical Center, 4802 Tenth Avenue, Brooklyn, NY 11219

☐ **Abstract—Background: Pain is one of the most common reasons patients present to the emergency department (ED). Emergency physicians should be aware of the numerous opioid and nonopioid alternatives available for the treatment of pain. Objectives: To provide expert consensus guidelines for the safe and effective treatment of acute pain in the ED. Methods: Multiple independent literature searches using PubMed were performed regarding treatment of acute pain. A multidisciplinary panel of experts in Pharmacology and Emergency Medicine reviewed and discussed the literature to develop consensus guidelines. Recommendations: The guidelines provide resources for the safe use of opioids in the ED as well as pharmacological and nonpharmacological alternatives to opioid analgesia. Care should be tailored to the patient based on their specific acute painful condition and underlying risk factors and comorbidities. Conclusions: Analgesia in the ED should be provided in the most safe and judicious manner, with the goals of relieving acute pain while decreasing the risk of complications and opioid dependence.**

☐ **Keywords—analgesia; opioids; pain; emergency; pain control; emergency care**

INTRODUCTION

Pain is one of the most common reasons for patients to visit the emergency department (ED) (1). Due to the extensive number of visits to the ED related to pain, emergency physicians and midlevel providers should be aware of the various options, both pharmacological and nonpharmacological, available to treat patients with acute pain.

In the United States, awareness of the dangers of opioid abuse and dependence has begun to rise quickly among the lay population, and was already well known among clinicians. During the past 20 years, pro-opioid campaigns predominantly driven by pharmaceutical

companies and several regulatory agencies encouraged physicians to recognize pain as the "5th vital sign" and to treat pain aggressively with opioids across a variety of acute and chronic painful conditions. These initiatives and physicians-required Continuing Medical Education courses in the treatment of pain have contributed to the increased use of opioids as a first-line therapy for pain (2,3).

It is estimated that at least 30,000 people die in the United States as a direct result of the use of opioids each year (4). Although it seems that no specific specialty has been primarily responsible for the opioid epidemic, clinicians in the ED are uniquely positioned on the front lines to be able to combat the ongoing crisis (5). As the death toll from the opioid epidemic continues to grow, the use of opioids in the ED as a first-line treatment for analgesia is becoming increasingly controversial (6,7). Since 1990, opioid-related deaths in the United States have more than tripled, and they are now one of the leading causes of death in adult populations (8). An expanding body of research is beginning to emerge that suggests that nonopioid medications such as acetaminophen or nonsteroidal anti-inflammatories (NSAIDs) can provide adequate analgesia and decrease the reliance of emergency clinicians on opioids (9–11).

One of the cornerstones of patient care in the ED is providing safe, effective, and efficient pain management. Such practice is a defining skill in Emergency Medicine (EM) (12). For these reasons, the American Academy of Emergency Medicine (AAEM) recently released evidence-based consensus guidelines for the management of acute pain in the ED. We wish to present, expand upon, and discuss these guidelines to provide resources for the EM clinician. The AAEM endorsed these guidelines in the hopes that all patients in the ED would have access to appropriate, expeditious, and safe analgesia.

MATERIALS AND METHODS

To provide recommendations on the treatment of acute pain in the ED, a multidisciplinary panel of experts in the fields of EM and Pharmacology was convened. Several independent medical literature searches were performed using PubMed (Medline) to review the literature published between 1987 and 2017 regarding the treatment of acute pain in the ED using different modalities including nonopioid analgesics, opioid analgesics, and nonpharmacological techniques. The abstracts of the articles were assessed by two authors to determine which papers should be reviewed in further detail based on relevance. Articles included in the detailed review were then discussed by the authors. Recommendations were then made based on the review of the literature in consensus and agreement by the panel of experts.

RECOMMENDATIONS

Management of acute pain in the ED should be patient centered and pain-syndrome targeted, and should utilize combinations of nonpharmacological and pharmacological analgesic modalities.

EM clinicians and associates who work in an ED should acknowledge and assess a patient's pain in an empathetic manner by expressing an understanding of the patient's suffering and a willingness to alleviate pain using a multimodal analgesic approach.

EM clinicians should communicate to patients that the goal of ED pain management, particularly in patients who are being discharged, includes restoration of functional ability, and is not simply reducing pain.

Emergency clinicians are charged with a provision of effective analgesia that is balanced against the potential for some pain medications to cause harm.

EM clinicians should engage patients in shared decision-making by providing patients with details about overall treatment goals and expectations, the natural trajectory of the specific painful condition, and analgesic options including short-term and long-term benefits and risks of adverse effects.

The Use of Nonopioid Analgesics

Several nonopioid analgesic options are available to the emergency physician and mid-level provider. A growing body of literature suggests the ED may foster a role in the development of opioid addiction and dependence, so use of these nonopioid analgesic options may prevent harm down the road for the patient (13).

NSAIDs should be administered at their lowest effective analgesic doses both in the ED and upon discharge, and should be given for the shortest appropriate treatment course. Caution is strongly advised when NSAIDs are used in patients at risk for renal insufficiency, heart failure, and gastrointestinal hemorrhage, as well as in the elderly (14–16).

Patients who present with acute pain warranting NSAIDs can be given topical NSAID preparations (Diclofenac gel or patch) when there are contraindications to systemic use (17,18). Other considerations include topical preparations of lidocaine, which is available as both a gel and patch (19). Lidocaine comes available in a 5% patch formulation, which has shown to be both safe and effective for various neurologic and musculoskeletal conditions, including acute and chronic low back pain, diabetic neuropathy, postherpetic neuralgia, and carpal tunnel syndrome (20,21).