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Editorial

From the World Cup Sideline to the Ambulance: Rethinking Prehospital Trauma Analgesia

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Background: Background: The 2026 FIFA World Cup highlighted methoxyflurane, an inhaled painkiller known as the "green whistle," and its role in trauma care. Pain is common in prehospital emergencies but is often undertreated. Early pain relief is essential for high-quality emergency care. Methoxyflurane, fentanyl, morphine, and ketamine are potential analgesic options. Research suggests that methoxyflurane can provide rapid pain relief. However, the choice of medication depends on the patient's condition and clinical circumstances. Effective pain management requires timely treatment, regular reassessment, and monitoring for adverse effects. Ultimately, prehospital care should ensure safe, prompt, and appropriate pain relief for every patient

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Introduction

A small green inhaler became an unexpected medical talking point during the 2026 FIFA World Cup. When Canadian midfielder Ismaël Koné was stretchered from the field during Canada's match against Qatar, photographs showed him inhaling from a distinctive green device. Team officials subsequently confirmed that it contained methoxyflurane, a self-administered inhaled analgesic commonly known as the "green whistle."(1) The episode attracted public attention because the device was unfamiliar to many observers. For clinicians, however, its greater significance lies elsewhere: it offered a highly visible reminder that effective pain treatment should begin where trauma occurs, not only after the patient reaches an emergency department.

Acute pain is one of the most frequent problems encountered in prehospital medicine, yet it remains inconsistently assessed and treated. Earlier observational studies documented both a high prevalence of significant pain and substantial variation in analgesic practice, including persistent oligoanalgesia even in physician-staffed systems.(2,3) Although those studies are not recent, the problem they identified has not disappeared. Modern prehospital care has advanced substantially in airway management, hemorrhage control, immobilization, triage, and transport logistics, but analgesia can still be treated as secondary to "more urgent" interventions. That distinction is often artificial. Pain management is not merely an issue of comfort; it is part of high-quality trauma care.

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The more useful question, therefore, is not whether methoxyflurane should replace morphine, fentanyl, ketamine, or other established agents. It is how emergency systems can provide effective analgesia early, safely, and without unnecessary procedural delay.

One practical obstacle is route of administration. Intravenous opioids remain familiar and effective, but obtaining vascular access may take time, particularly on the sideline, in an ambulance, in difficult terrain, or in an injured patient who is distressed and moving. Non-intravenous routes can therefore be clinically attractive, not because they are inherently superior, but because they may shorten the interval between recognition of severe pain and treatment. Contemporary evidence-based recommendations accordingly emphasize that prehospital clinicians have several reasonable analgesic options rather than a single universally preferred drug.(4) The appropriate strategy depends on the patient, the injury, the route available, monitoring capacity, transport time, clinician competence, and local protocols.

Recent evidence has made this discussion particularly timely. In the PreMeFen randomized phase 3 trial, inhaled methoxyflurane was compared directly with intranasal fentanyl and intravenous morphine in adults with moderate-to-severe acute pain treated in the prehospital setting. At 10 minutes, methoxyflurane met the prespecified criterion for non-inferiority to both intranasal fentanyl and intravenous morphine. Mean pain-score reduction was −3.31 with methoxyflurane, −1.98 with fentanyl, and −2.74 with morphine. Adverse events occurred in approximately one quarter of patients in each treatment group, although serious adverse events occurred in one patient receiving methoxyflurane.(5) These results are important because they evaluate not only analgesic efficacy but the clinically relevant early period in which delays caused by intravenous access may matter most.

Methoxyflurane should nevertheless not be transformed from an under-recognized option into an unquestioned solution. A 2024 systematic review of inhaled analgesics in prehospital acute pain concluded that methoxyflurane and nitrous oxide may have useful roles, but judged the overall certainty of evidence to be low or very low. The authors considered methoxyflurane potentially useful as a short-acting analgesic or as a bridge to intravenous access and longer-acting treatment.(6) Earlier emergency-department trials also demonstrated a relatively rapid onset of analgesia with methoxyflurane, including the InMEDIATE trial, in which median time to first pain relief was 3 minutes compared with 10 minutes for standard analgesic treatment.(7) These findings support its consideration as one option within a broader analgesic pathway, rather than justification for drug-specific enthusiasm.

The same principle applies to ketamine. Ketamine has characteristics that can be attractive in prehospital trauma care, particularly when opioid-related respiratory or hemodynamic concerns exist. However, the evidence is not one-sided. A systematic review including 2,760 patients suggested that analgesic-dose ketamine probably reduces pain effectively and may cause less nausea and vomiting than opioids, but agitation was more frequent, and much of the underlying evidence carried substantial risk of bias.(8) Thus, the relevant clinical question is rarely “Which analgesic is best?” It is more often “Which analgesic, by which route, is best for this patient in this environment?”

This distinction is especially important in sports medicine. A stadium sideline combines features of both prehospital and highly monitored medical care: clinicians may have immediate access to the patient, but definitive imaging, operative treatment, and prolonged observation remain elsewhere. Rapid analgesia can facilitate splinting, positioning, transfer, and humane transport, but it must never become a substitute for injury assessment. Pain relief should not be interpreted as evidence that an athlete is fit to continue competition. Neurovascular status, suspected fracture or dislocation, head and spinal injury, evolving compartment syndrome, and other time-sensitive diagnoses must be evaluated independently of symptomatic improvement.

The World Cup episode therefore offers a broader lesson than the visibility of a particular green inhaler. Well-designed trauma analgesia should be protocol driven rather than personality driven. A robust protocol begins with routine pain assessment using a validated scale when possible, followed by timely treatment, explicit reassessment, monitoring for adverse effects, and clear handover documentation. It should also provide alternative routes when intravenous access is unnecessary or delayed. Pain intensity after treatment should be treated as a clinical vital outcome rather than an undocumented impression.

Such protocols also need room for escalation. A rapidly administered inhaled or intranasal agent may be appropriate for initial relief but insufficient for a displaced fracture, major soft-tissue injury, prolonged extrication, or long transport. Conversely, immediate intravenous opioid or ketamine administration may be unnecessarily complex in a stable patient with moderate pain and short transport time. Prehospital analgesia should therefore be conceived as a sequence of care, not a single medication decision: assess, treat, reassess, escalate when required, and communicate the response.

Implementation may ultimately matter as much as pharmacology. Persistent undertreatment of pain is unlikely to be explained solely by lack of available drugs. Delays in vascular access, concerns about adverse effects, fear of obscuring clinical findings, restrictive protocols, variation in provider scope of practice, inadequate reassessment, and uncertainty about alternative routes can all contribute. A service equipped with multiple analgesics can still deliver poor pain care if treatment depends on individual preference rather than a reliable clinical pathway.

Research should now move beyond simply asking whether one drug reduces a pain score more than another. Pragmatic prehospital trials should examine **time to** meaningful analgesia, need for rescue medication, adverse events, patient-reported comfort, ease of administration, transport logistics, protocol adherence, and clinically important delays. Sports settings also deserve specific study. Major tournaments provide advanced medical teams, but the lessons may be transferable to community sport, remote events, ski environments, road trauma, and ambulance systems where rapid non-intravenous analgesia could have even greater practical value.

The “green whistle” seen at the World Cup should therefore be regarded as a symbol rather than an answer. Its real contribution to the conversation may be that it made early trauma analgesia visible. Modern emergency care should not require a global sporting event to remind us that severe pain deserves prompt, structured treatment. Whether the first medication is methoxyflurane, fentanyl, morphine, ketamine, or another appropriate agent is less important than ensuring that pain is recognized, treatment is not unnecessarily delayed, response is reassessed, and escalation is available when needed.

Conclusion

The goal of prehospital analgesia is not to identify a universal winner among drugs; it is to build systems in which appropriate pain relief becomes routine rather than fortunate.

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Availability of data and materials

Not applicable

Conflict of Interest

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Authors' contribution

The author conceived the editorial, reviewed and interpreted the relevant literature, drafted the manuscript, critically revised its intellectual content, and approved the final version.

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