# PRIMARY SURVEY

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#### LOW DOSE NALBUPHINE TREATMENT DOES NOT PRODUCE ADEQUATE ANALGESIA IN PREHOSPITAL CARE

Nalbuphine hydrochloride was, until recently, the only intravenous analgesic authorised for use by paramedics. While the manufacturer's datasheet provides guidelines on dosing regimens, in practice these vary in each ambulance Trust. We sought to determine if a low dose regimen, designed to minimise the incidence of respiratory depression, was safe and effective. We found side effects were rare and not clinically significant, but that the regimen resulted in inadequate analgesia in a high proportion of patients. Larger incremental doses delivered over shorter intervals should be adopted. However, these may risk increasing the incidence of side effects, and further research is required to determine the optimal regimen.

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### CHRONIC PAIN AFTER WHIPLASH INJURY

Whiplash injury is common. Yet, many physicians struggle with how to best prevent an acute injury from becoming a chronic pain syndrome and disability. Current models of whiplash use a biopsychosocial approach, and the treatment suggestions and guidelines within this article are built upon that approach. The prevention of chronic whiplash is highly relevant to the practice of family physicians, emergency physicians, and many specialties. This article assimilates studies dealing with chronic pain models, and with the treatment of whiplash, to develop a programme of practical and straightforward advice for patients that reduces the likelihood of chronic pain, and hopefully reduces the burden of this medicolegal and social dilemma on our society.

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#### THE LARGEST HEAD INJURY TRIAL EVER CONDUCTED ENTERS ITS MAIN PHASE

Worldwide, millions of people are treated each year for severe head injury. A substantial proportion die and many more are permanently disabled. If short-term corticosteroid infusion could be reliably shown to reduce these risks by just a small percentage then this might affect the treatment of a few hundred thousand patients a year, protecting thousands from death or long term disability. The MRC CRASH Trial has been designed to provide reliable evidence on the efficacy of corticosteroids in head injury. The pilot phase has proved to be a considerable success, with 1000 patients recruited and data collection 99% complete. In this issue, the CRASH Trial Pilot Study Collaborative Group, representing 52 hospitals from 14 countries, reports on the largest head injury trial ever conducted.

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#### PREHOSPITAL THROMBOLYSIS: LESSONS FROM SWEDEN?

Prehospital thrombolysis is already being introduced in several parts of the UK, spurred on by the National Service Framework for coronary heart disease and the NHS plan. However, there is currently very little evidence or information concerning this new approach to reducing the "pain to needle" time, nor how it may be successfully implemented in practice. In this issue Benger, Karlsten, and Eriksson report on a research visit to Sweden, a country where prehospital thrombolysis is already well developed and in widespread use. Their findings and data support the effectiveness of this technique, and provide a range of valuable insights. This paper will be of particular interest to those considering the introduction or development of prehospital thrombolysis in their own region.

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## LITERATURE REVIEW ON WHIPLASH ASSOCIATED DISORDERS LEADING TO PATIENT INFORMATION AND ADVICE

Whiplash associated disorders, a common presentation in emergency departments, are often considered self limiting yet they become a chronic problem for up to 50% of patients. Psychosocial factors seems to be important determinants of chronicity, so advice and information for patients represent an important component of optimal management. This review provides evidence for the messages that should be imparted to patients. The focus should be on reassurance, fear reduction, the benefits of early return to normal activities/work, and performance of simple exercises; consistency of message delivery is important. Clinical trials are necessary to determine if such evidence based patient information influences clinical outcomes.

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