

Research project title: Secondary analysis of the SHaPED trial: shifting away from opioids to simple analgesics for emergency care of low back pain

We wanted to know: What is the effect of implementing a guideline-based care model for patients with low back pain in emergency departments on the ordering of non-opioid pain medicines?

What is the problem? Clinical guidelines for low back pain recommend nonsteroidal anti-inflammatory drugs (NSAIDs) and/or paracetamol, and advise against the use of opioids as first-line analgesics. In Australia, very high rates of opioids are still ordered for patients with low back pain in emergency departments (~ 60%). The Sydney Health Partners Emergency Department (SHaPED) trial implemented a guideline-based care model for patients with low back pain in 4 emergency departments and found a reduction in the opioid prescription rate from 62.8% to 50.5% without adversely affecting patient-reported outcomes (pain, disability). The original analyses did not examine the effect of the care model on non-opioid pain medicine prescriptions, so it is unknown whether the reduction in opioids was accompanied by an increase in recommended medicines.

How did you study the problem? We performed a secondary analysis of the SHaPED trial, which included 269 clinicians (physicians, nurses and physiotherapists), and 4625 patients. The main outcome of this analysis was the proportion of low back pain episodes treated exclusively with NSAIDs, paracetamol, or a combination of the two. We performed an intention-to-treat linear regression analysis for each outcome and estimated the intervention effect as odds ratios (ORs) with 95% confidence intervals.

What did you find? We found a 7.1% increase in the use of NSAIDs and paracetamol, which provides evidence that a shift in the prescribing pattern of pain medicine away from opioids and towards safer analgesics is possible in low back pain emergency care.

How can this research be used? Training for emergency staff should be implemented in emergency departments to encourage guideline-based care for low back pain.

Cautions There is uncertainty regarding the scalability of the intervention and the generalisability to other settings.

Reference: Cote-Picard C, Coombs DM, Li Q, Maher CG, Machado GC. Shifting From Opioids to Simple Analgesics for Emergency Care of Patients With Low Back Pain: A Secondary Analysis of the SHaPED Cluster Randomized Trial. *JAMA Health Forum*. 2024;5(9):e243008.

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