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EMA

LETTER TO THE EDITOR

Treatment of migraine in Australian emergency departments

Dear Editor,

Evidence-based guidance for the treatment of migraine in Australian ED has been published.[1] It recommends oral aspirin with metoclopramide for mild migraine in patients who have not taken other medication, and parenteral phenothiazines (chlorpromazine, prochlorperazine) or sumatriptan for patients with moderate to severe symptoms. It also strongly discourages the use of opiates, in particular pethidine. The objective of this audit was to describe the treatment patterns for migraine in Australian ED.

The National Health and Medical Research Council's National Institute for Clinical Studies commissioned a retrospective audit on ED pain management practice across Australia in 2007. The clinical component of that audit asked hospitals to collect retrospective data onto an explicit form for 20 randomly selected records in each of three diagnostic cohorts: migraine, abdominal pain and fractured neck of femur for the period June 2005 to June 2006. Case selection and data collection were performed locally. The 141 registered ED were invited to participate by expressions of interest.

The present paper reports the migraine subgroup of that audit. Patients were excluded from this analysis if they were aged under 18 years, or had a discharge diagnosis other than migraine or headache. The project was compliant with the National Health and Medical Research Council (Australia) guidelines for definition as a quality assurance project not requiring formal ethics approval.

Thirty-six hospitals contributed data, representing 25% of registered ED, which included 518 patients. Median age of patients was 37 years (interquartile range 28–47) and 71% were female. Two hundred and sixty-three (51%, 95% CI: 46–55%) reported having taken medication for this migraine episode before attending ED. The treatments given are shown in Figure 1. In total, 36% of patients received treatment with one of the agents recommended by the national guidelines.

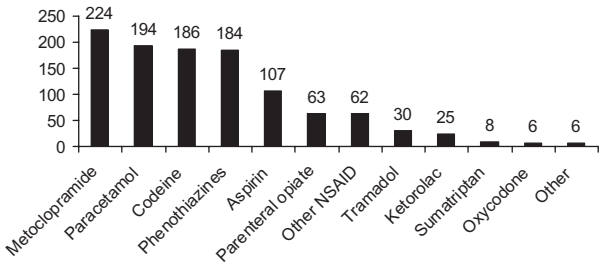

Figure 1. Agents used in ED to treat migraine in adults ($n = 468$). Total exceeds 468 as agents used in combinations have been reported separately.

The audit showed that there is considerable variation in the treatment of migraine headache within ED, and that compliance with the current best practice recommendations is only moderate (36%). Of concern is the overuse of paracetamol and codeine (alone or in combination), and the persistent use of parenteral opiates in a small but significant proportion of cases. Our finding of only moderate compliance with best-practice recommendations is not surprising. Factors contributing to this might be a lack of awareness of the recommendations and/or the underlying evidence, the large variety of migraine treatments available and personal and local historical practice patterns. This analysis was not designed to identify barriers to best practice.

This audit has some limitations that should be considered in interpreting the results. Variations in coding might have introduced unrecognized bias. Data were collected by retrospective medical record review methodology, and are thus subject to the known limitations of this methodology, particularly missing data. Cases were not consecutive, but were selected by participating organizations. These data are limited to Australia and may not be generalizable to other regions.

In summary, this audit shows considerable variation in practice in the treatment of migraine in Australian ED, and that compliance with best-practice guidelines is only moderate. Parenteral opiates are still used in some centres despite evidence of inferior effectiveness and potential harm.

Reference

1. Kelly AM, Holdgate A. *Emergency Care Evidence in Practice Series, Emergency Care Community of Practice: Migraine in the Emergency Department. National Institute of Clinical Studies [Melbourne, Australia] 2006*. [Cited 30 September 2008.] Available from URL: http://www.nhmrc.gov.au/nics/programs/_files/Management%20of%20acute%20migraine%20%5BPDF%20190KB%5D.pdf

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